ORDER NO. SD-225

NATIONAL Service Manual

72-WATT STEREO MUSIC CENTER WITH TWIN SPEAKER SYSTEMS

MODEL SS-7000

SPECIFICATIONS

AMPLIFIER SECTION

Peak Music Power Output:	72 Watts at 8Ω (5%)
IHF Dynamic Power Output:	36 Watts at 8Ω (5%) 30 Watts at 8Ω (1%)
Continuous Power Output:	24 Watts at 8Ω (1%)
Power Bandwidth:	10 Hz to 40,000 Hz (−3 dB)
Input Sensitivity (for rated output)	
PHONO 1 (Magnistate):	150 mV
PHONO 2 (Moving Magnetic):	3 mV
TAPE (REC):	100 mV
(DIN):	30 mV
Input Impedance	
PHONO 1 (Magnistate):	30 kΩ
PHONO 2 (Moving Magnetic):	50 kΩ
TAPE (REC):	10 kΩ
(DIN):	100 kΩ
Bass Range:	±10 dB at 100 Hz
Treble Range:	±10 dB at 10 kHz
Damping Factor:	45 at 8 Ω

FM TUNER SECTION

FM Usable Sensitivity (IHF):	2.5μV
FM Harmonic Distortion: (at 400Hz, 100% modulation)	0.5%
Signal to Noise Ratio:	60 dB
FM Stereo Separation (at 1 kHz):	35 dB
Capture Ratio (IHF):	2.5 dB

AM TUNER SECTION

AM Sensitivity (IHF):	20μV
Dimension: (Including control knobs)	18-5/32″(W)×5-29/32″(H)×13-25/32″(D)
Weight:	17.6 lbs
Power Supply:	110, 125, 210, 240V AC 65 Watts

RECORD PLAYER SECTION

Turntable:	11 inch stamped metal with beautiful rubber sheet
Cartridge:	MAGNISTATE (PCM ceramic)
Stylus:	PANASONIC EPS-13 TTSD (Diamond)

SPEAKER SYSTEM

Power Handling Capacity:	36 W (Peak)
Impedance:	8Ω
Frequency Response:	40 to 20,000 Hz
Crossover Frequencies:	8,000 Hz
Bass Speaker (woofer)	
Diameter:	6-1/2 inches
Resonance (Open Air):	45 Hz
Treble Speaker (tweeter)	
Diameter:	2 inches (horn)
Weight:	11 pounds
Dimension:	11-11/32″(W)×18-9/16″(H)×6-27/32″(D)

<EXPORT DIVISION>
MATSUSHITA ELECTRIC TRADING CO., LTD.
P.O. Box 288, Central Osaka, Japan

MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.
RIADO and STEREO DIVISION

COMBINATION OF SS-7000 STEREO SYSTEM

- TUNER AMP ..... MODEL SA-700
- RECORD PLAYER ..... MODEL SL-700
- SPEAKER SYSTEM ..... MODEL SB-150

DISASSEMBLY INSTRUCTIONS

TO REMOVE RECORRD CHANGER

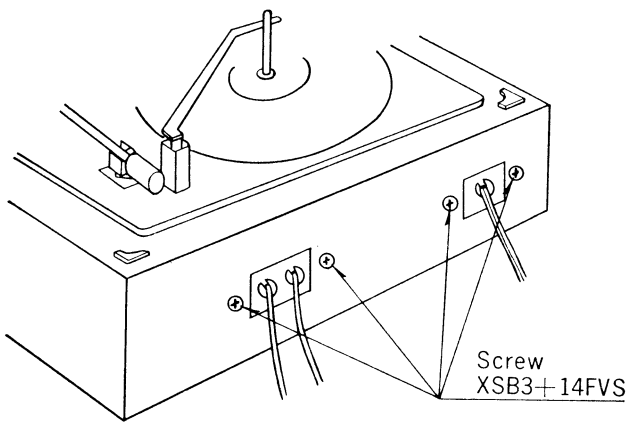


Fig. 1 Back View (SL-700)

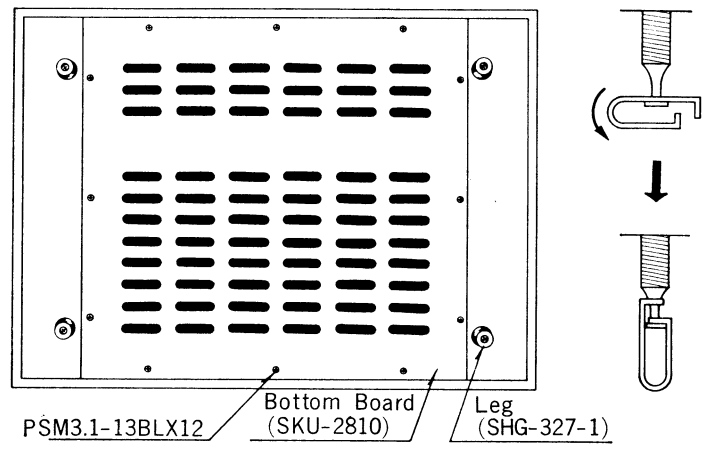


Fig. 2 Bottom Vier (SL-700)

1) Remove four (4) screws, as illustrated in Fig. 1.
2) Remove twelve (12) bottom board screws, as illustrated in Fig. 2.
3) Turn three (3) locking clip, illustrated in Fig. 2.
4) Remove record changer from set.

TO REMOVE CHASSIS

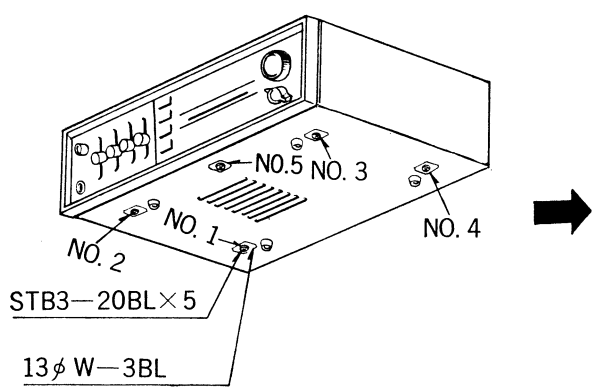


Fig. 3

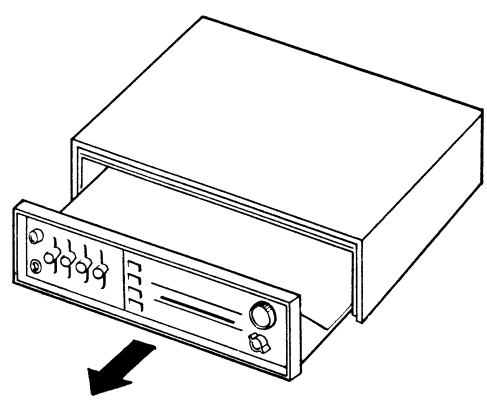
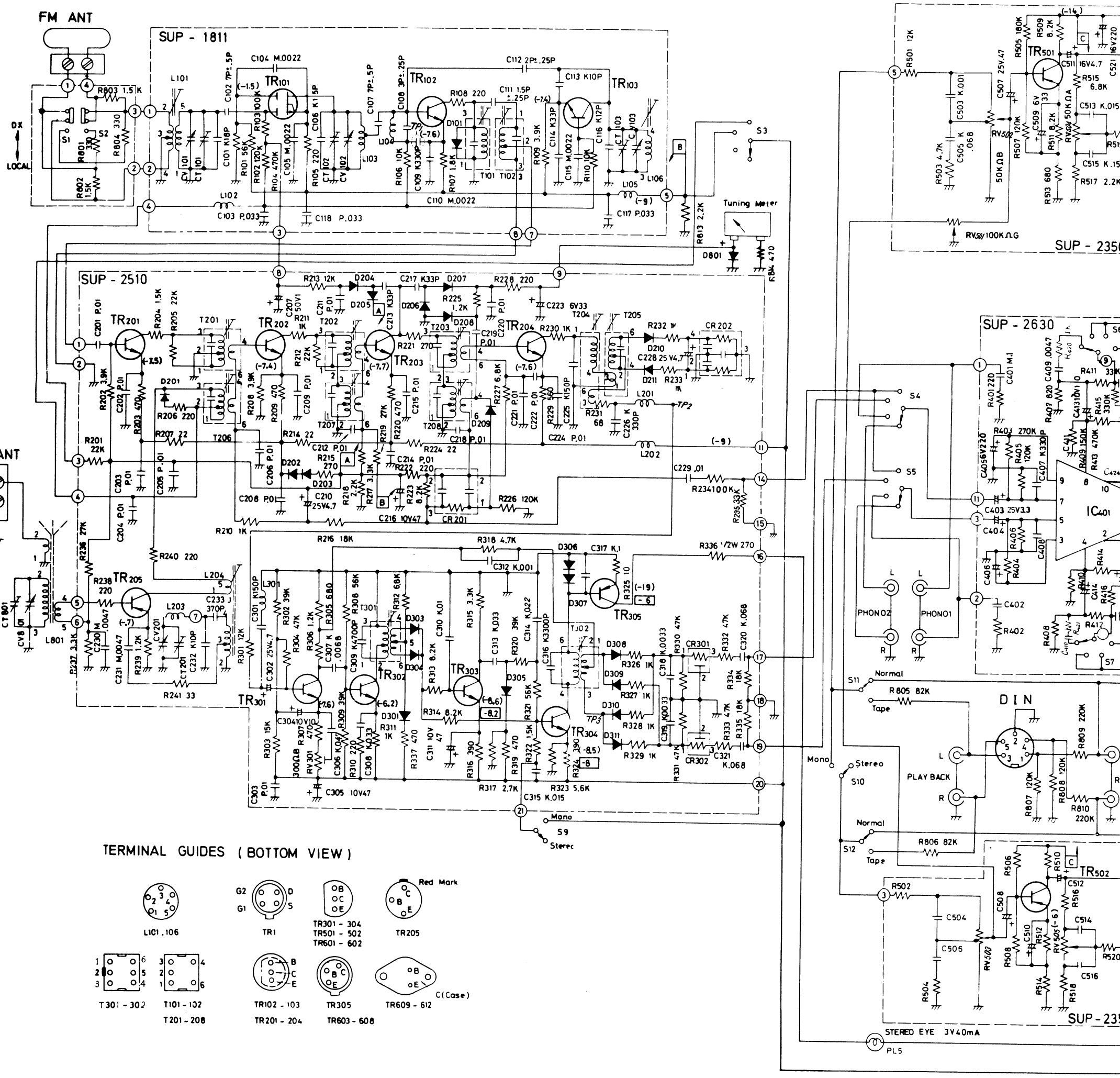


Fig. 4

Remove five (5) bottom board screws, Nos. 1–5, as illustrated in Fig. 3.
Remove chassis from cabinet, as illutrated in Fig. 4.

SCHEMATIC DIAGRAM MODEL SS-7000

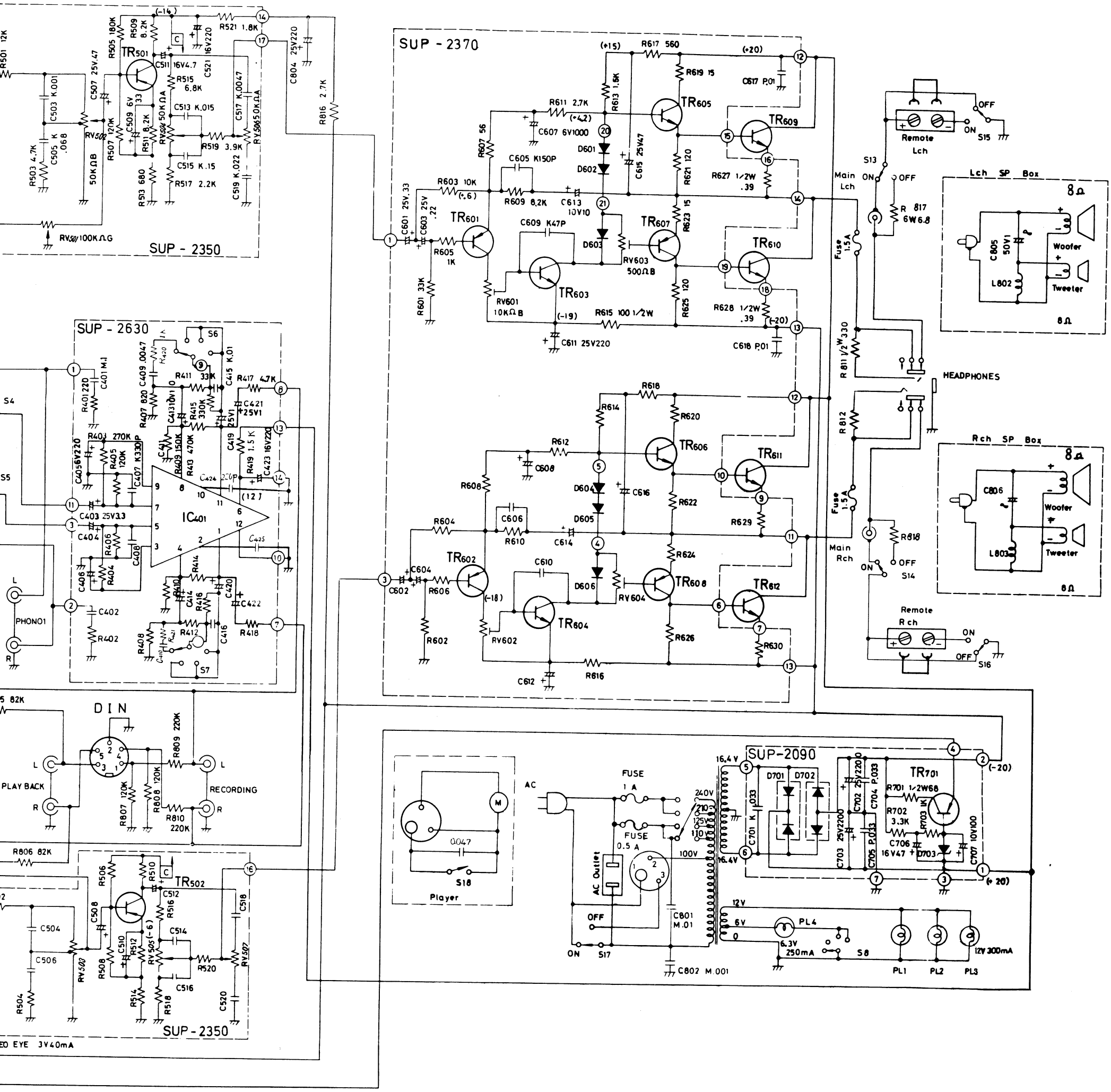


TERMINAL GUIDES (BOTTOM VIEW)

TRANSISTORS		DIODES	
TR_{101}	3SK32	D_{101}	0A79
TR_{102}	2SC784	D_{201}	0A70
TR_{103}	2SC381	$D_{202-203}$	MA26
$TR_{201-202}$	2SC381	$D_{204-207}$	0A79
TR_{205}	2SA102	$D_{208-209}$	0A70
$TR_{301-304}$	2SC828	$D_{210-211}$	20A79
TR_{305}	2SA550	D_{301}	MA26
$TR_{501-502}$	2SA564	$D_{303-304}$	0A70
$TR_{601-602}$	A2SA564	$D_{305-307}$	MA26
$TR_{603-606}$	A2SC538	$D_{308-311}$	20A70
$TR_{607-608}$	A2SA550	$D_{601-602.604-605}$	MA26
$TR_{609-612}$	A2SD226	D_{701}	IS1850
TR_{701}	2SB324	D_{702}	IS1850R
$TR_{203.204}$	2SC645	D_{703}	IS1717
IC		D_{801}	0A70
IC_{401}	AN204	$D_{603.606}$	DS410

NOTES

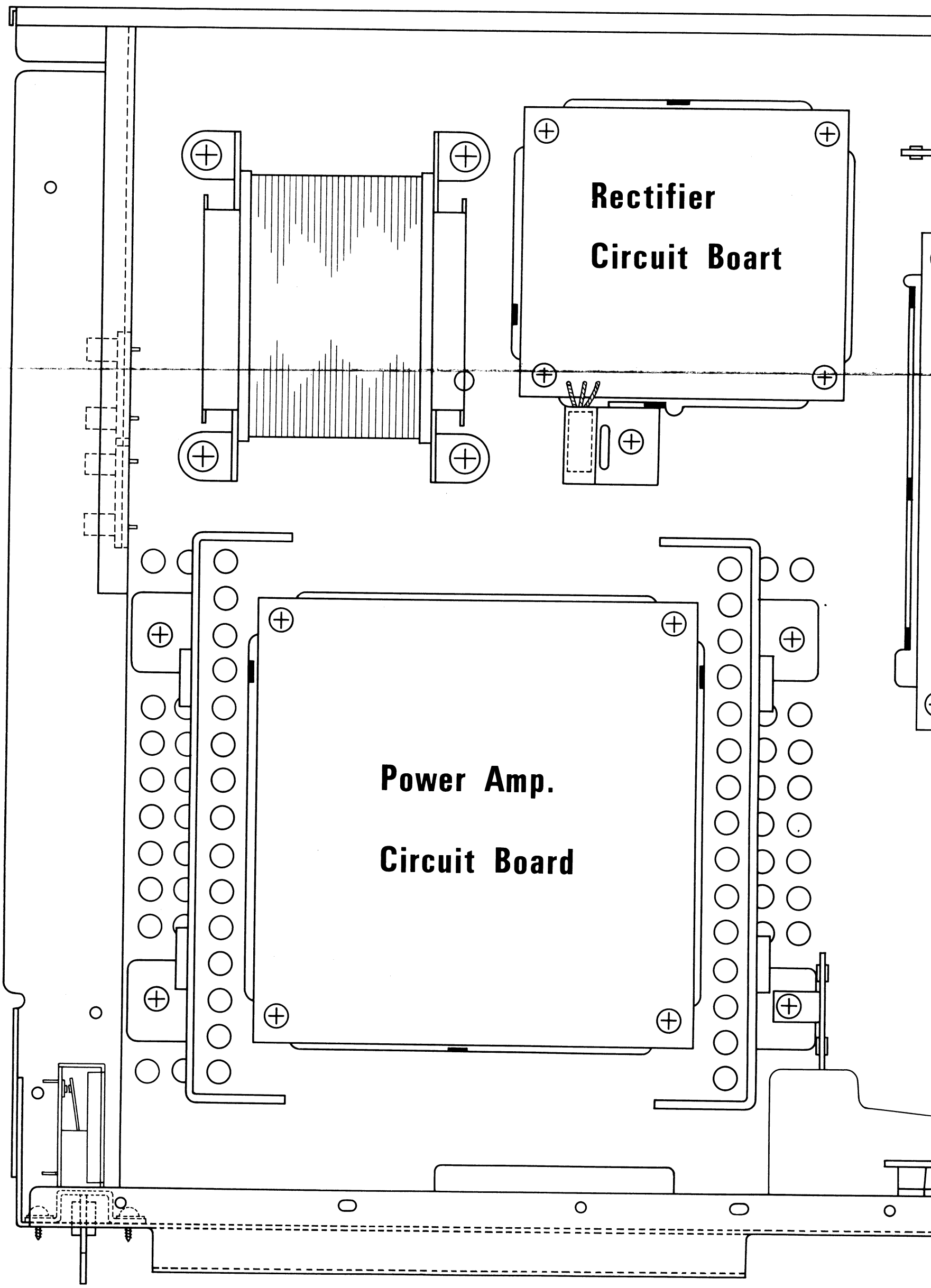
1. -◯- ···Corresponds to the number on the printed w
2. S1-S2···FM Sensitivity Select Switch now in DX p
3. S3-S8···Selector Switch now in PHONO2 position r
   PHONO2→ PHONO1→ FMAUTO→ AM in that order
4. S9-S10···MODE Switch now in STEREO position.
5. S11-S12···TAPE MONITOR Switch now in normal p
6. S13-S14···MAIN SPEAKER Switch now in ON posi
7. S15-S16···REMOTE SPEAKER Switch now in OFF
8. DC Voltage measurements are taken with circuit
   Tester (100K Ω /V) from chassis ground.
   ( ) ·····NO Signal Condition.
   ▭ ·····FM Stereo Signal Reception.
9. S17 Power Source Switch now in ON position.

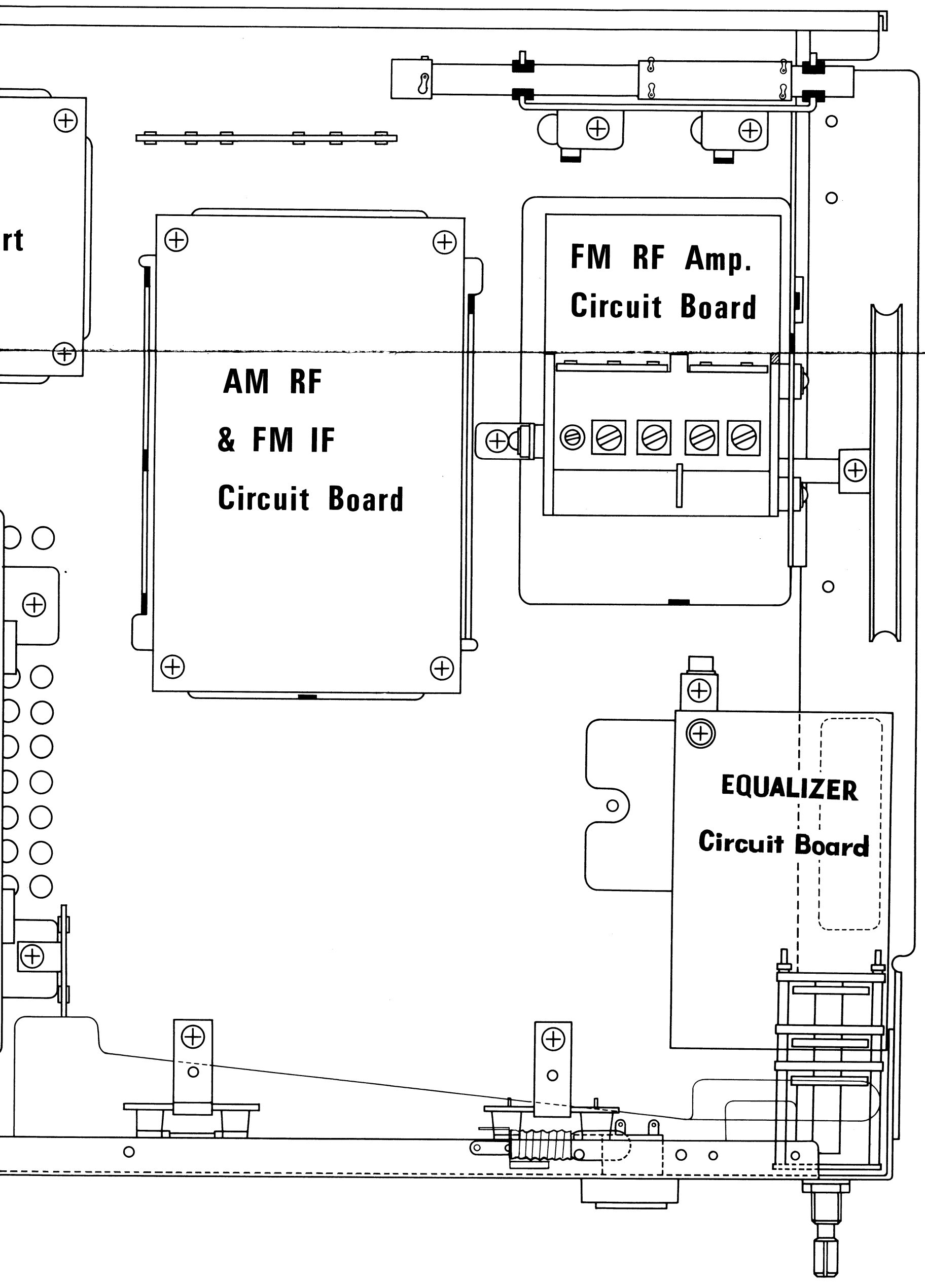


sponds to the number on the printed wiring board
Sensitivity Select Switch now in DX position.
ector Switch now in PHONO2 position moves
→ PHONO1→ FMAUTO→ AM in that order.
ODE Switch now in STEREO position.
APE MONITOR Switch now in normal position.
AIN SPEAKER Switch now in ON position.
EMOTE SPEAKER Switch now in OFF position.
ge measurements are taken with circuit
(100K Ω /V) from chassis ground.
)·····NO Signal Condition.
·····FM Stereo Signal Reception.
Source Switch now in ON position.

CR Numbers

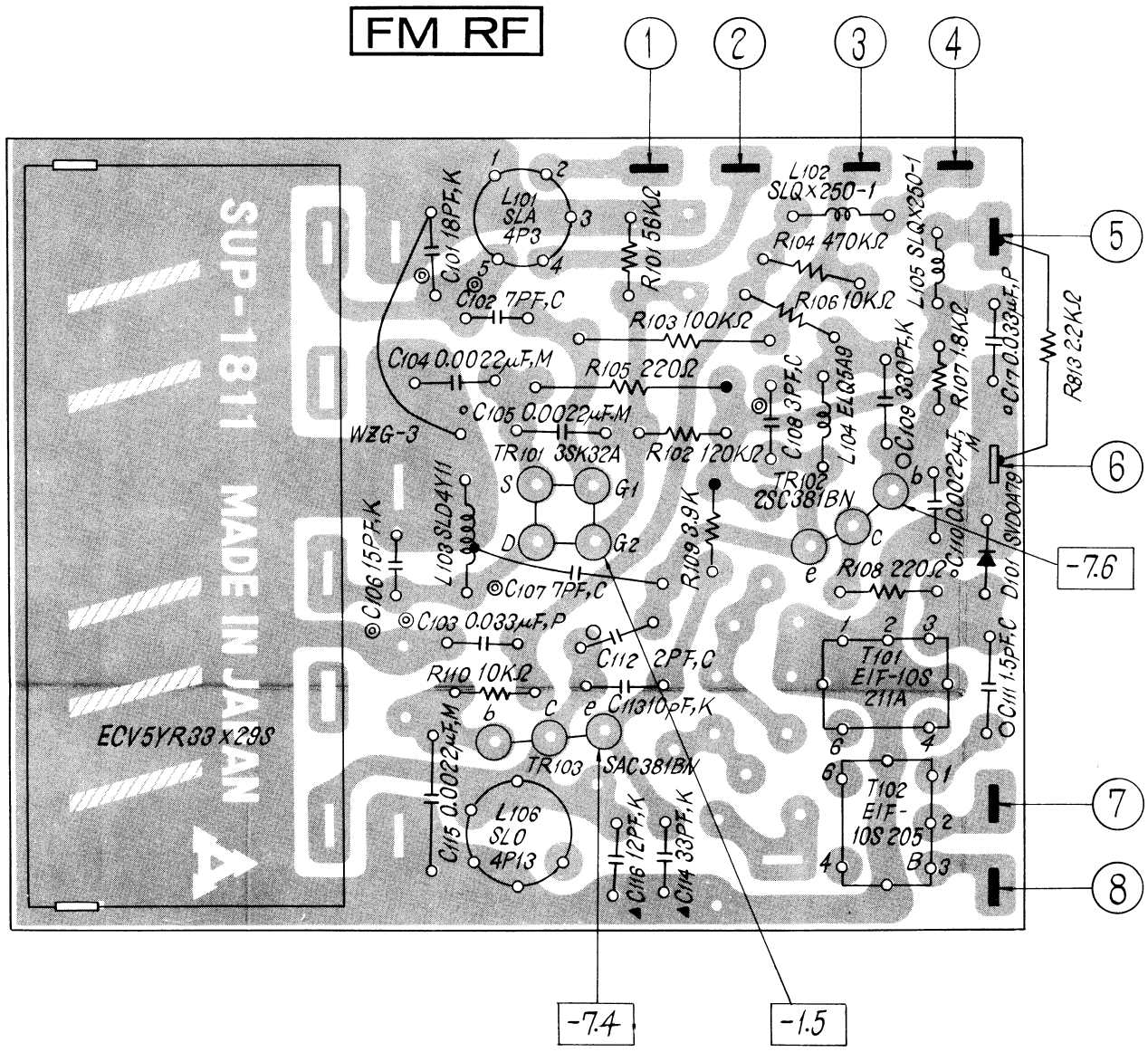
FM FRONT	C101~118	R101~110
IF	C201~233	R201~241
MPX	C301~321	R301~337
PRE	C401~423	R401~419
AF	C503~521	R501~521
POWER	C601~618	R601~630
POWER SOURCE		
	C701~707	R701~703
OTHERS	C801~807	R801~818


Rectifier
Circuit Boart
Power Amp.
Circuit Board

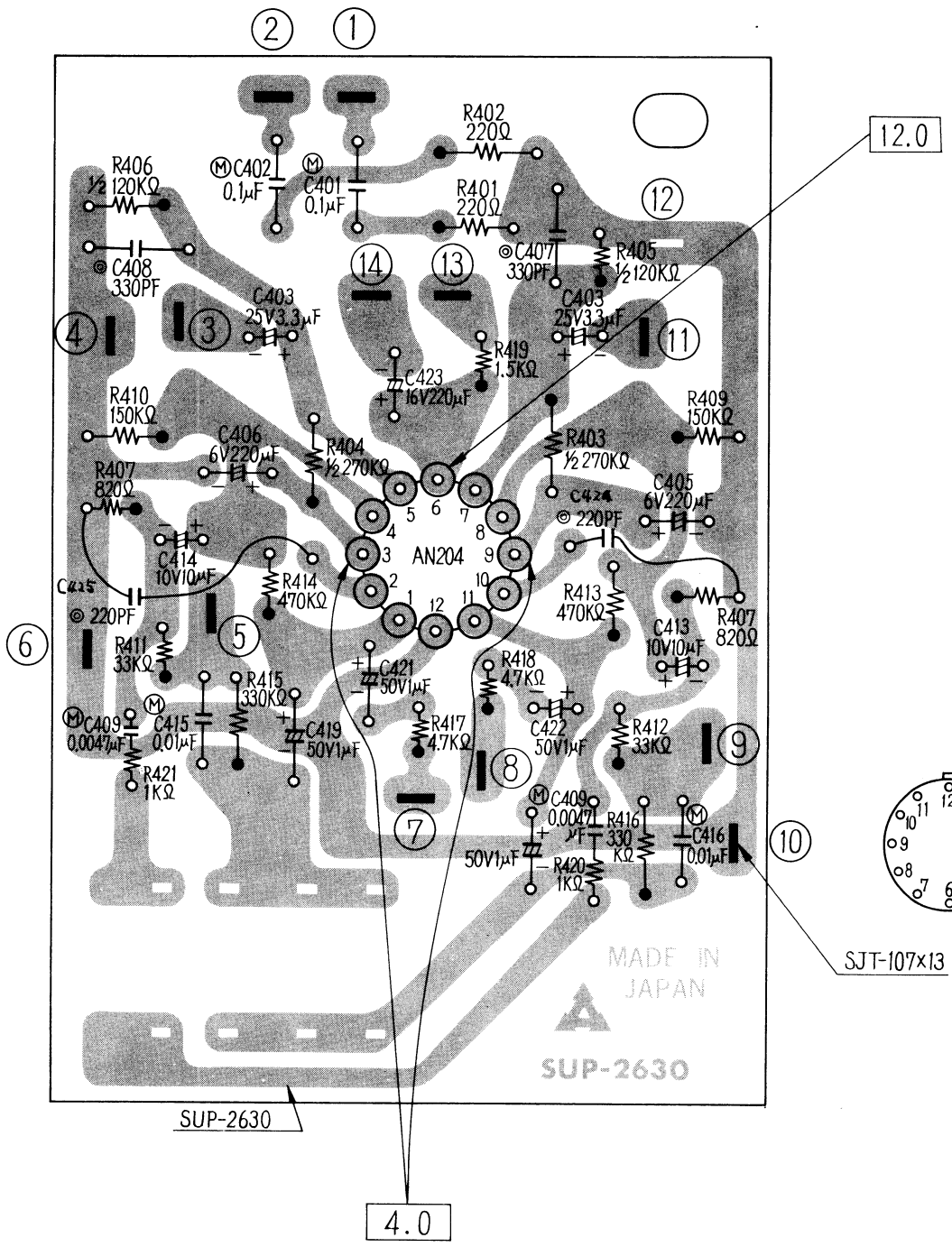

rt
AM RF
& FM IF
Circuit Board
FM RF Amp.
Circuit Board
EQUALIZER
Circuit Board

MODEL SS-7000

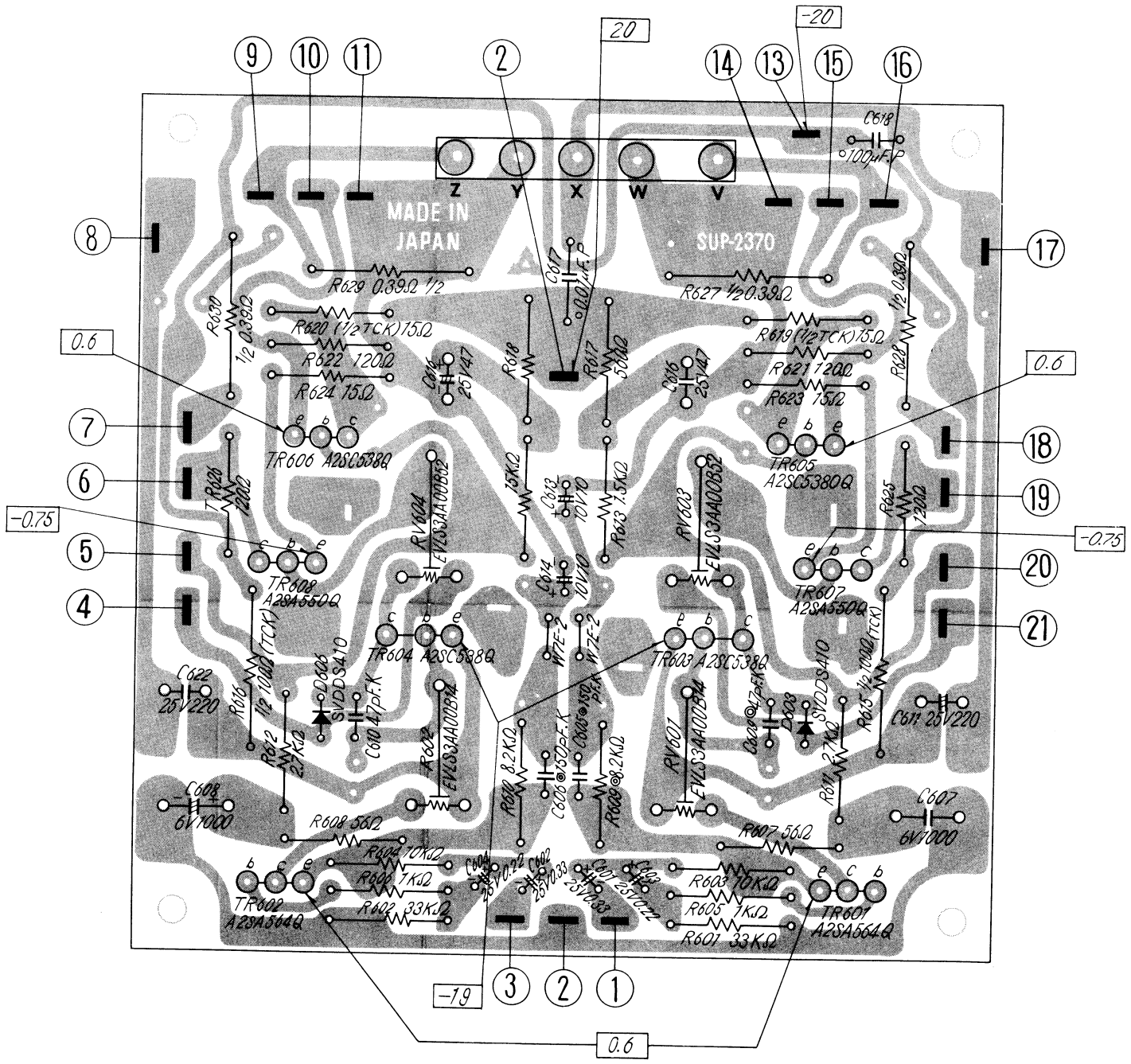
FM RF



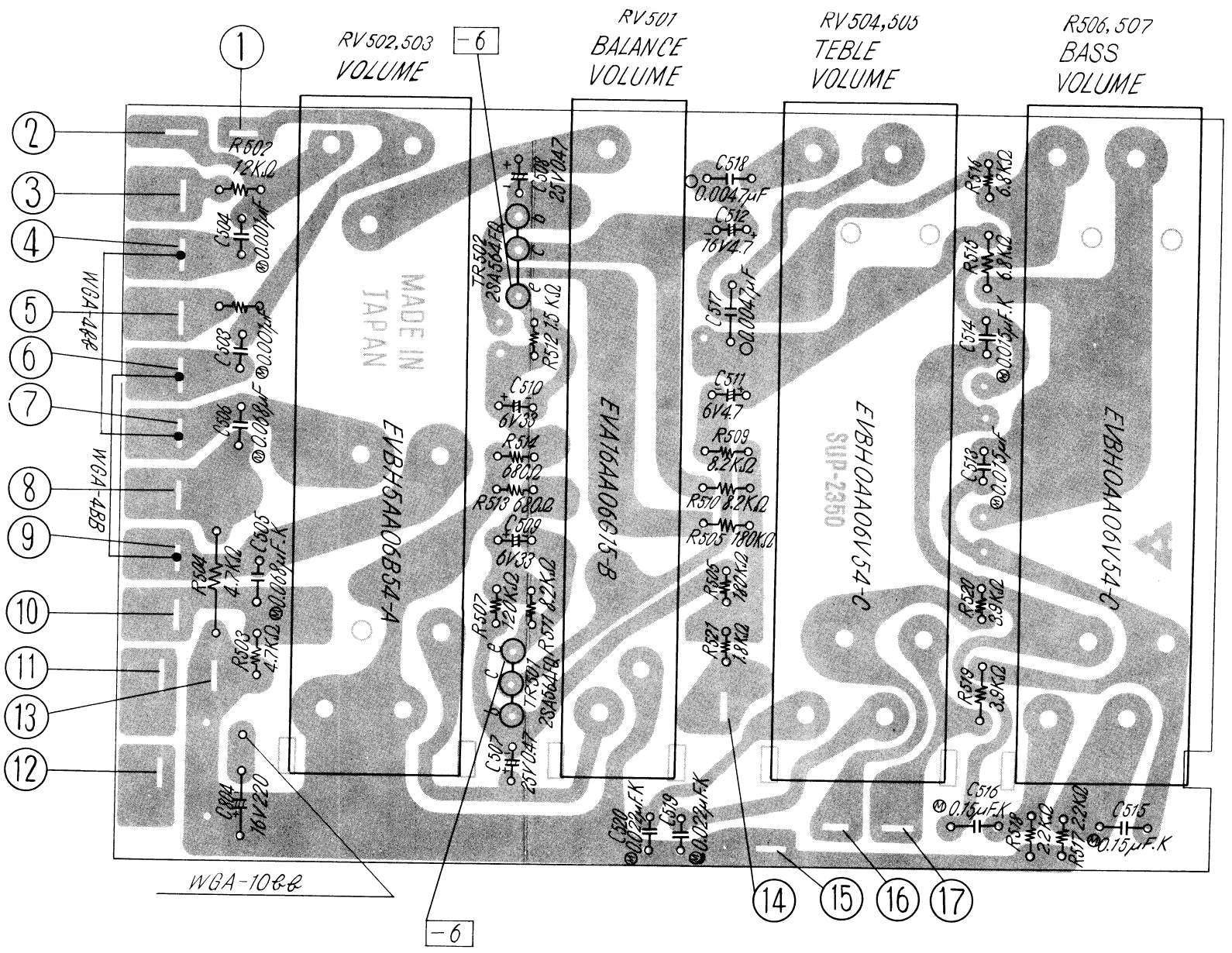
EQUALIZER



POWER

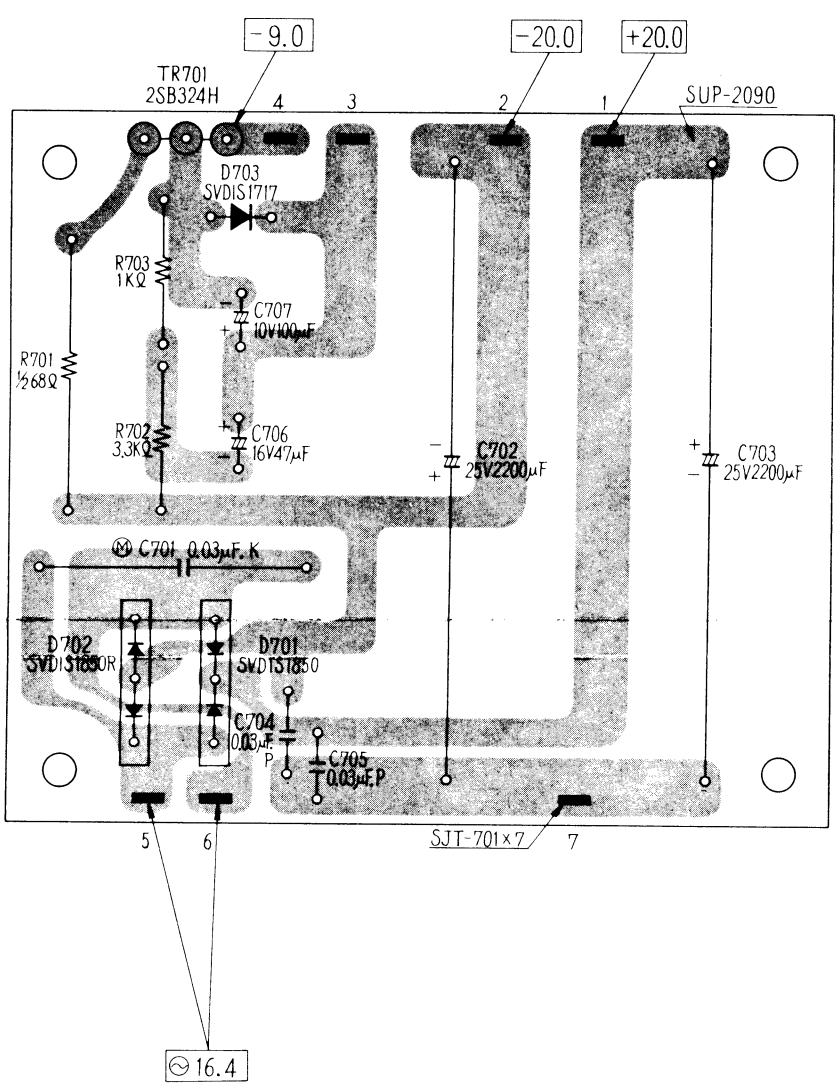


TONE CONTROL AMP

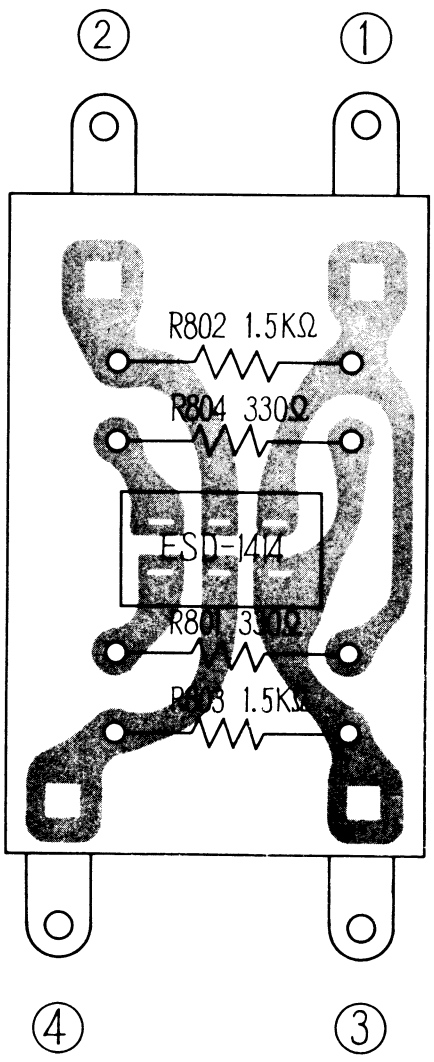


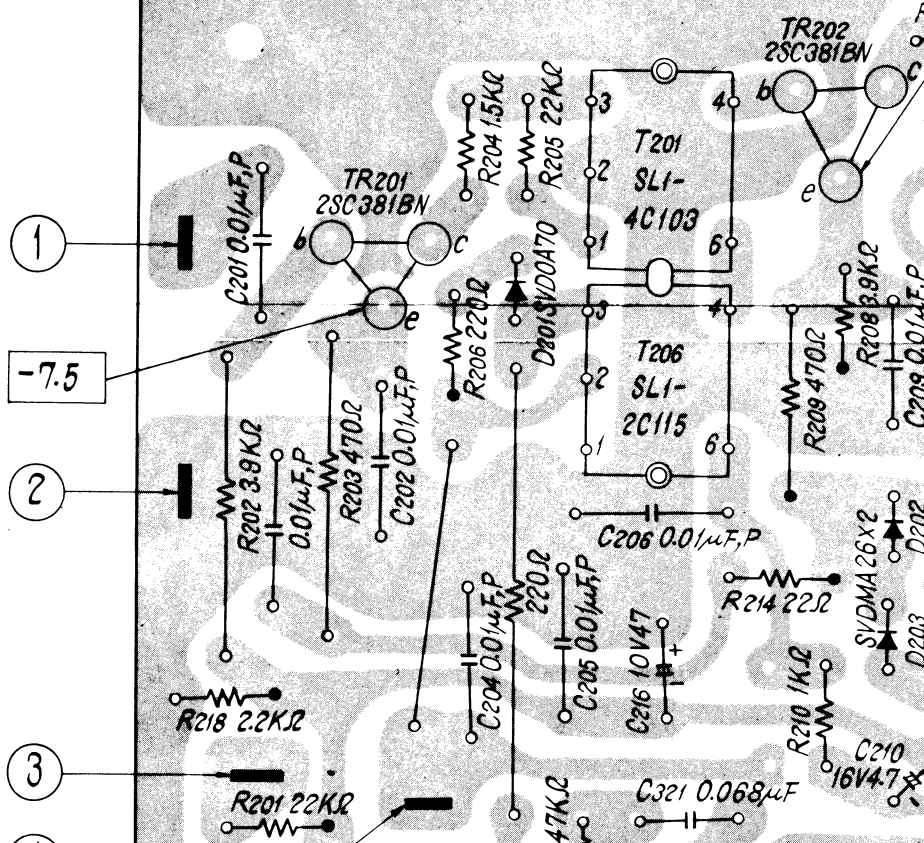
MODEL SS-7000

RECTIFIER

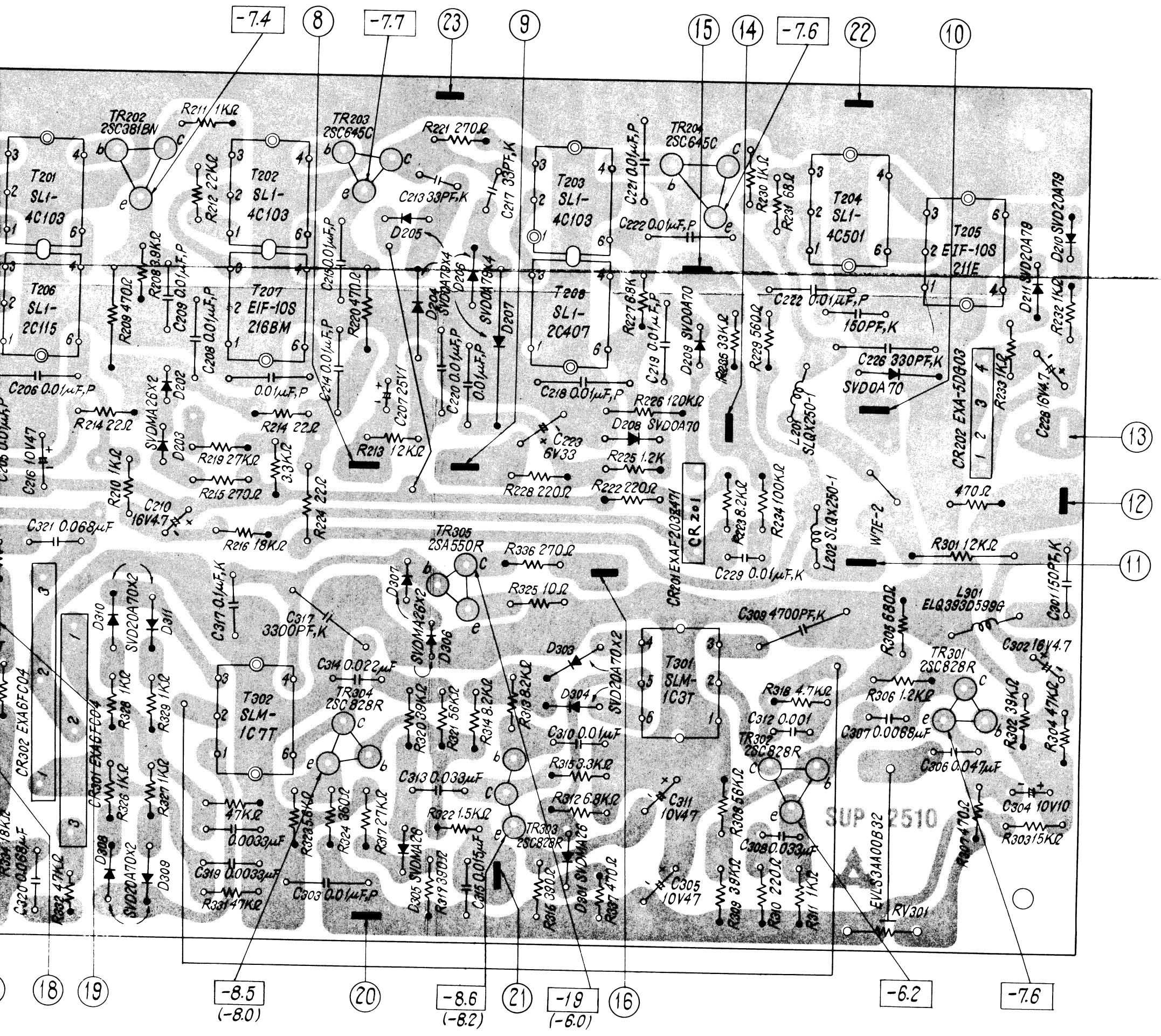


FM ATT





AM RF & FM IF


-7.4
8
-7.7
23
9
15
14
-7.6
22
10
13
12
11
-8.5
(-8.0)
20
-8.6
(-8.2)
21
-19
(-6.0)
16
-6.2
-7.6
18
19
T201 SL1-4C103
T202 SL1-4C103
T203 SL1-4C103
T204 SL1-4C501
T205 EIF-10S 211E
T206 SL1-2C115
T207 EIF-10S 216BM
T208 SL1-2C407
T301 SLM-1C3T
T302 SLM-1C7T
TR202 2SC3818N
TR203 2SC645C
TR204 2SC645C
TR301 2SC828R
TR302 2SC828R
TR303 2SC828R
TR304 2SC828R
TR305 2SA550R
CR201 EXAF203471
CR202 EXA-5DG03
CR301 EXA6FC04
CR302 EXA6FC04
L201 SLQX250-1
L202 SLQX250-1
L301 ELQ393D599G
W7E-2
EVL83AA00B32
RV301
SUP 2510
R211 1KΩ
R212 22KΩ
R213 12KΩ
R214 22Ω
R215 270Ω
R216 18KΩ
R219 27KΩ
R220 470Ω
R221 270Ω
R222 220Ω
R224 22Ω
R225 1.2K
R226 120KΩ
R227 68K
R228 220Ω
R229 560Ω
R230 1KΩ
R231 68Ω
R232 1KΩ
R233 1KΩ
R234 100KΩ
R235 33KΩ
R301 12KΩ
R302 39KΩ
R303 15KΩ
R304 47KΩ
R305 680Ω
R306 1.2KΩ
R307 470Ω
R308 56KΩ
R309 39KΩ
R310 220Ω
R311 1KΩ
R312 6.8KΩ
R313 8.2KΩ
R314 8.2KΩ
R315 3.3KΩ
R316 390Ω
R317 27KΩ
R318 4.7KΩ
R319 390Ω
R320 39KΩ
R321 56KΩ
R322 1.5KΩ
R323 56KΩ
R324 36Ω
R325 10Ω
R326 1KΩ
R327 1KΩ
R328 1KΩ
R329 1KΩ
R331 47KΩ
R332 4.7KΩ
R336 270Ω
R337 470Ω
C201 0.01μF,P
C202 0.01μF,P
C203 0.01μF,P
C204 0.01μF,P
C205 0.01μF,P
C206 0.01μF,P
C207 25V1
C208 0.01μF,P
C209 0.01μF,P
C210 16V4.7
C211 0.01μF,P
C212 0.01μF,P
C213 33PF,K
C214 0.01μF,P
C216 10V47
C217 33PF,K
C218 0.01μF,P
C219 0.01μF,P
C220 0.01μF,P
C221 0.01μF,P
C222 0.01μF,P
C223 6V33
C226 330PF,K
C228 16V4.7
C229 0.01μF,K
C301 150PF,K
C302 16V4.7
C303 0.01μF,P
C304 10V10
C305 10V47
C306 0.047μF
C307 0.0068μF
C308 0.033μF
C309 4700PF,K
C310 0.01μF
C311 10V47
C312 0.001
C313 0.033μF
C314 0.022μF
C315 0.015μF
C317 0.1μF,K
C318 3300PF,K
C319 0.0033μF
C320 0.068μF
C321 0.068μF
D202 SVDMA26X2
D203 SVDMA26X2
D204 SVD20A70X2
D205
D206
D207
D208 SVD0A70
D209 SVD0A70
D210 SVD20A70
D211 SVD20A70
D301 SVDMA26
D303
D304
D305 SVDMA26
D306 SVDMA26X2
D307
D308 SVD20A70X2
D309
D310 SVD20A70X2
D311
470Ω
1K
2K
3K
4K
5K
6K
7K
8K
9K
10K

CABINET : LOCATION OF PARTS

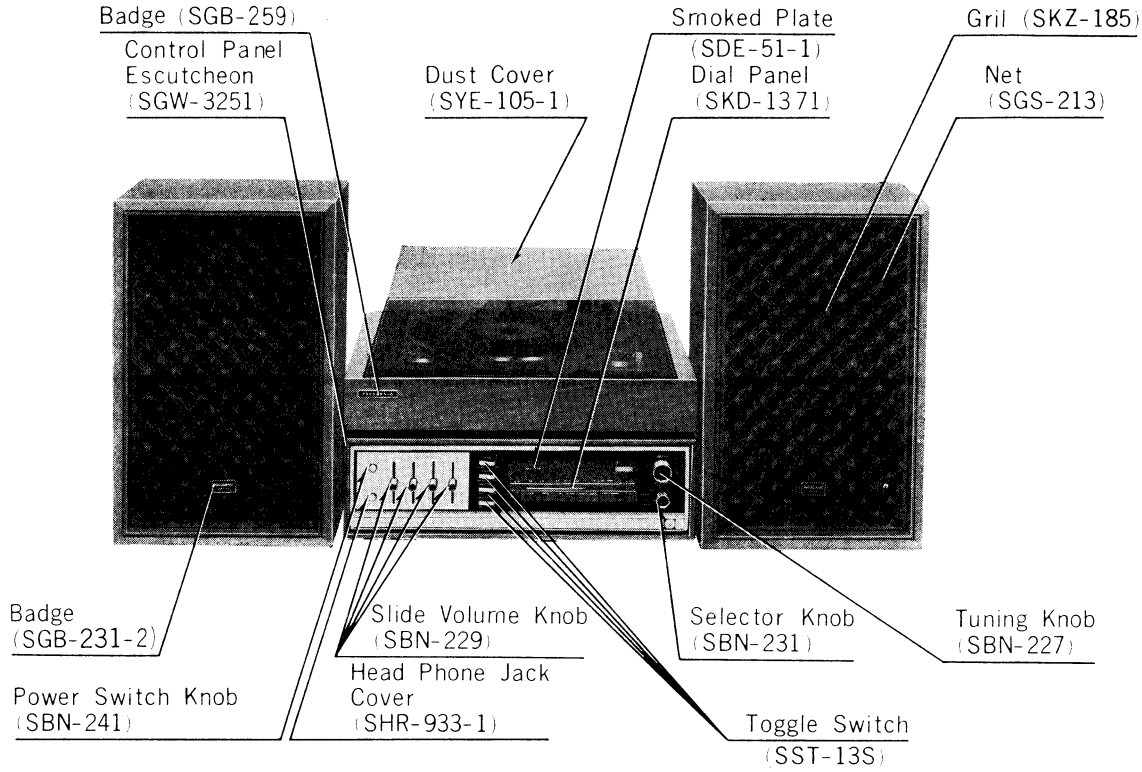


Fig. 5 Front View

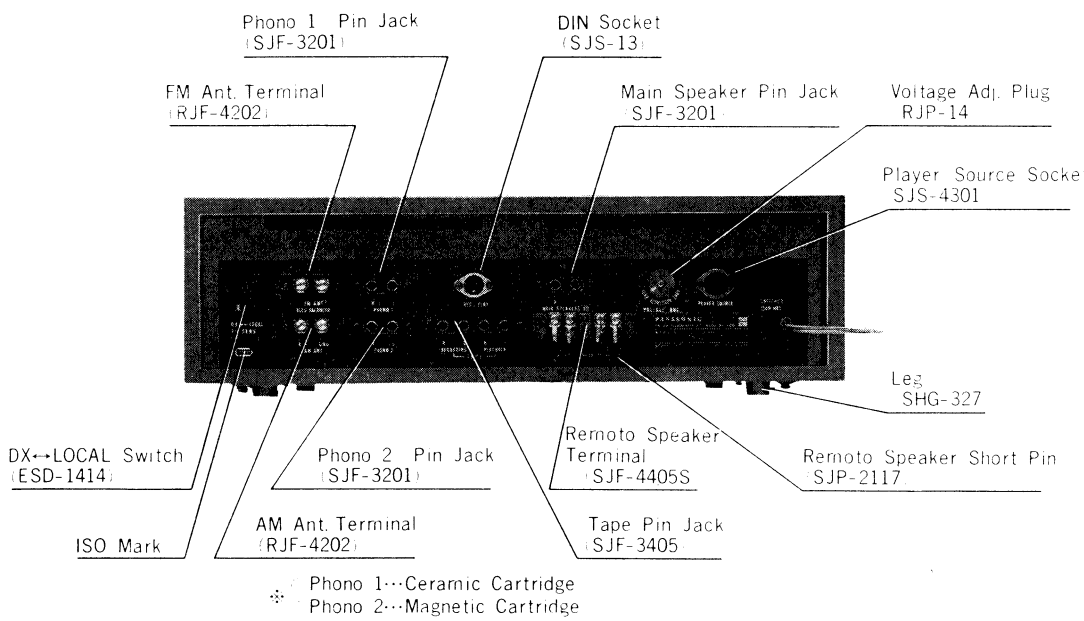


Fig. 6 Back View, MODEL SA-700

DIAL CORD STRINGING GUIDE

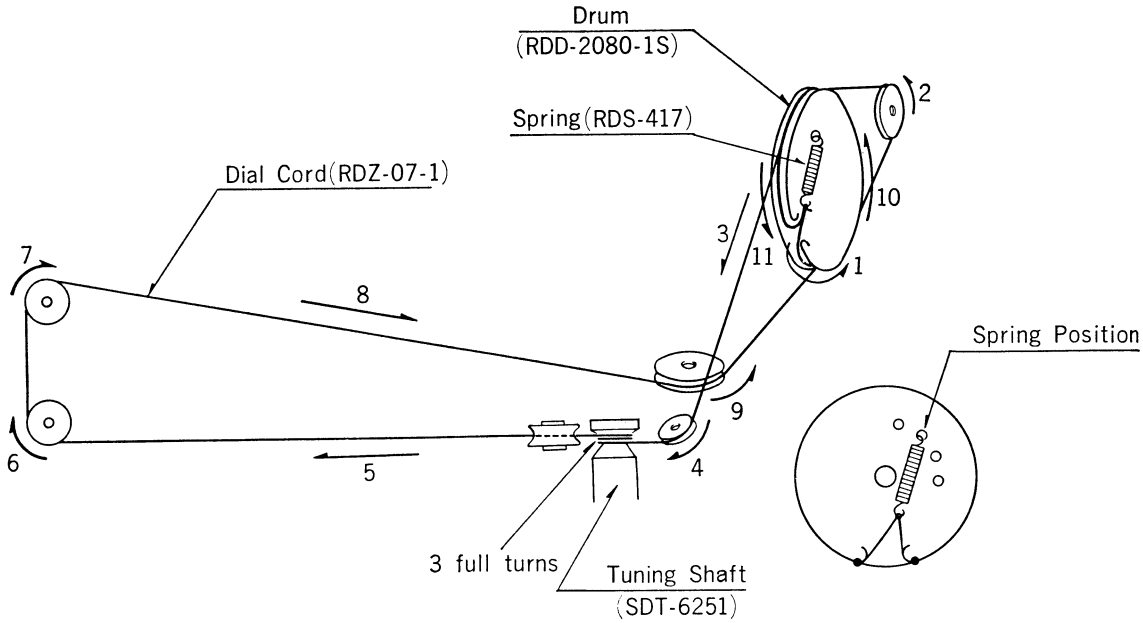


Fig. 7

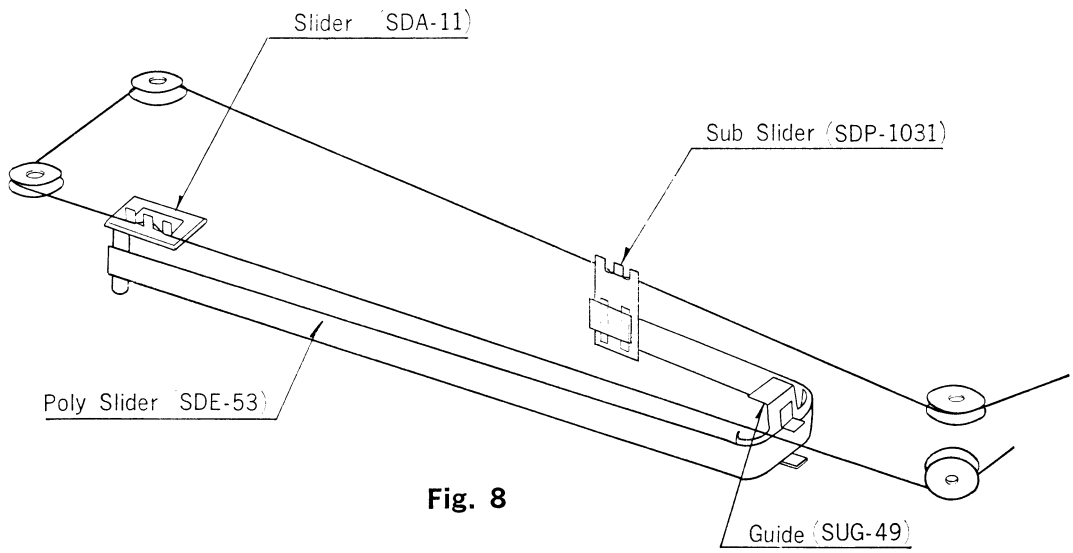


Fig. 8

Notes:

1. Dial cord lengh is 60″.
2. Tuning gang is positioned at minimum capacity.
3. Arrow marks (1–11) indicate correct oder and dirction of stringing dial cord.
4. Cement dial cord ends.

To Mount Slider

1. Set tuning gang to fully closed position.
2. Set slider to start poiut of dial scale.
3. Attach slider to dial cord.
4. Attach sub slider to dial cord.

SPEAKER CONNECTION

MODEL SB-150

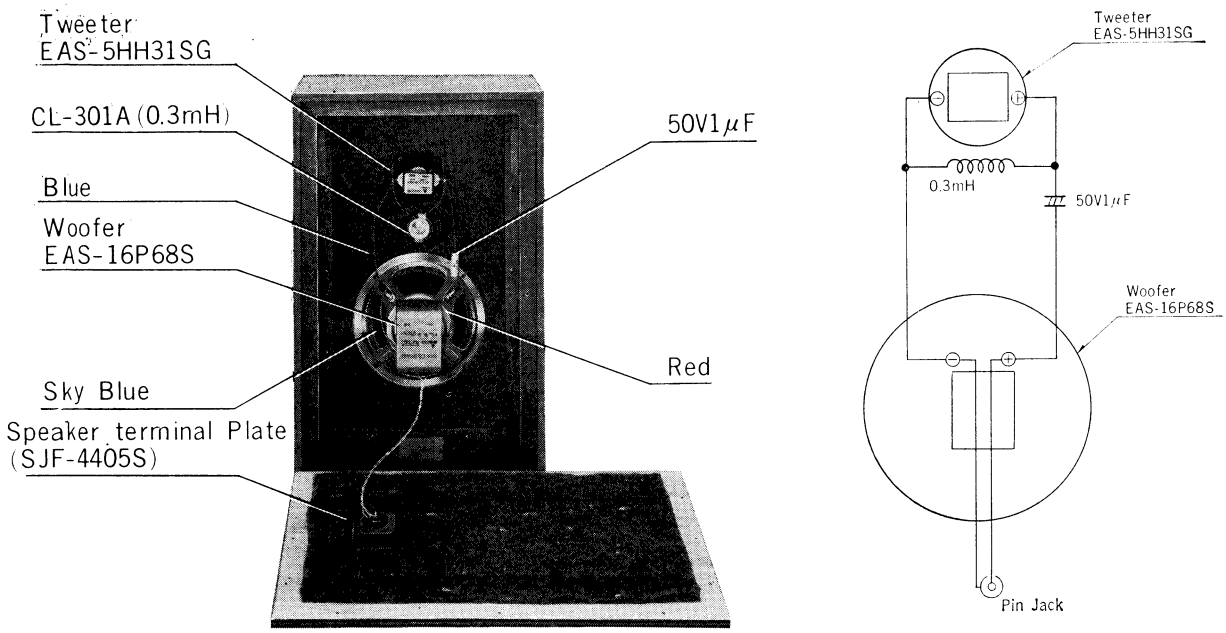


Fig. 9

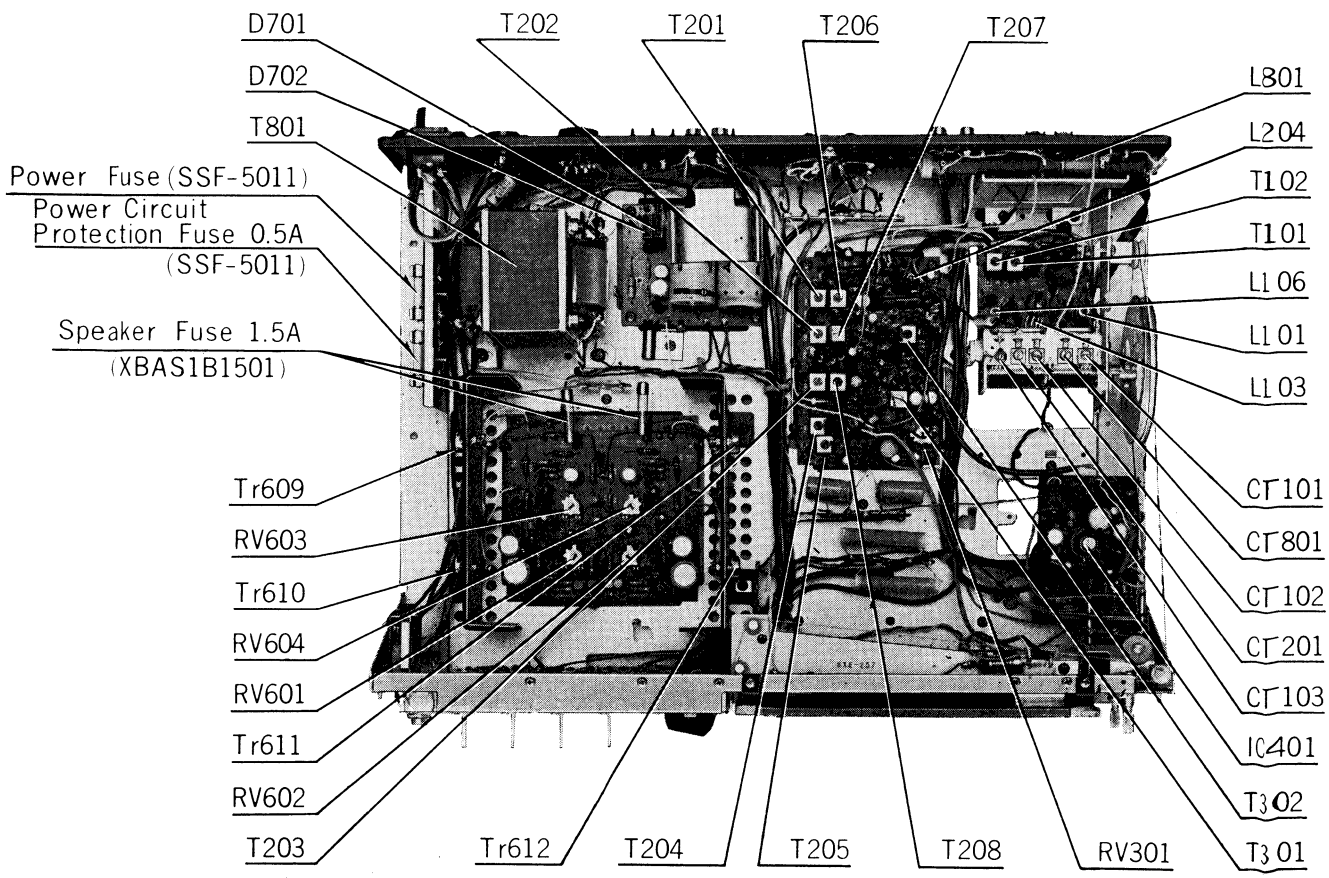


Fig. 10

ALIGNMENT INSTRUCTIONS

FREQUENCY & DISTANCE OF DIAL SCALE

To accurately align the proper frequencies to the dial scale, refer to the table and mark the edge of the dial scale plate accordingly, using the "Start Point" mark on the dial scale as reference point.

TABLE

Band	Frequency	Distance from "Start Point"	
AM	550 kHz	11.34 mm	15/32"
	1500 kHz	109.62 mm	4 5/16"
FM	90 MHz	20.2 mm	25/32"
	106 MHz	69.1 mm	2 23/32"

1. AM/FM-IF & RF ALIGNMENT

■ AM-IF & RF ALIGNMENT

EQUIPMENT REQUIRED

Signal generator that provides 455 kHz-1700 kHz AM (30% modulated with 400 Hz)

Radiation loop coil

Output meter (Circuit tester or VTVM)

Monitor speaker

Output of signal generator should be no higher than necessary to obtain an output reading.

* Set volume control to maximum.
* Set balance control to center.
* Set bass control to center.
* Set treble control to center.
* Set band selector switch to AM.

STEP	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1	Fashion loop of several turns of wire and radiate signal into loop of receiver.	455 kHz (400 Hz Mod.)	Point of non-interference. (on about 600 kHz)	Output meter across EXT Speaker Terminal (L)	T_{206} (IFT) T_{207} (IFT) T_{208} (IFT)	Adjust for maximum output.
2		550 kHz (400 Hz Mod.)	550 kHz		L_{204} (OSC Coil) L_{801} (ANT Coil)	Adjust for maximum output by sliding coil (L_{801}) along ferrite core.
3		1500 kHz (400 Hz Mod.)	1500 kHz		Ct_{201} (OSC Trimmer) Ct_{801} (ANT Trimmer)	Adjust for maximum output. Repeat steps (2) and (3).

Notes: 1. Cement antenna bobbin with wax after completing alignment.
2. Make certain that speaker system is connected to the tuner when aligning.

■ FM IF AND DETECTOR ALIGNMENT WITH OSCILLOSCOPE

EQUIPMENT REQUIRED

Signal generator that provides 10.7 MHz marker.
Sweep generator that provides 10.7 MHz center frequency and 400 kHz sweep width.

OSCILLOSCOPE

Set sweep selector of oscilloscope to "External Sweep". Apply 60 Hz sweep signal from sweep generator to horizontal input terminals of oscilloscope.

* Set band selector switch to FM.
* Set balance control to center.
* Set volume control to minimum.
* Set treble control to center.
* Set bass control to center.

STEP	SWEEP GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1	High side thru. 0.001 mfd to point TP_2. Common to chassis.	High side thru. dummy antenna to point TP_1. Common to chassis.	Point of non-interference (on/about 89 MHz)	Connect vert. amp. of scope to point TP_2. Common to chassis. (Reter to fig. 12)	T_{101} (FM 1 st IFT) T_{102} (FM 2 nd IFT) T_{201} (FM 3 rd IFT) T_{202} (FM 4 th IFT) T_{204} (FM 6 th IFT)	Turn T_{203} and T_{205} upwards and adjust T_{101}, T_{102}, T_{201}, T_{202} and T_{204} (primary) for maximum amplitude and symmetrical curve. (Refer to fig. 13)
2	〃	〃	〃	〃	T_{205} (FM DISC. IFT)	Adjust T_{205} (primary) so that 10.7 MHz marker is at the center. (Refer to fig. 13)
3	〃	〃	〃	〃	T_{203} (FM 5th IFT) T_{204} (FM 6th IFT) T_{205} (FM DISC. IFT)	〃

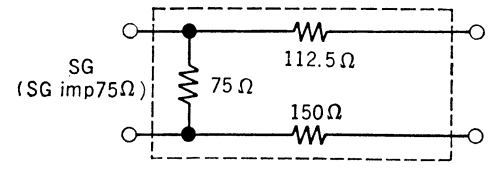


Fig. 11 Fig.14FM Dummy Antenna

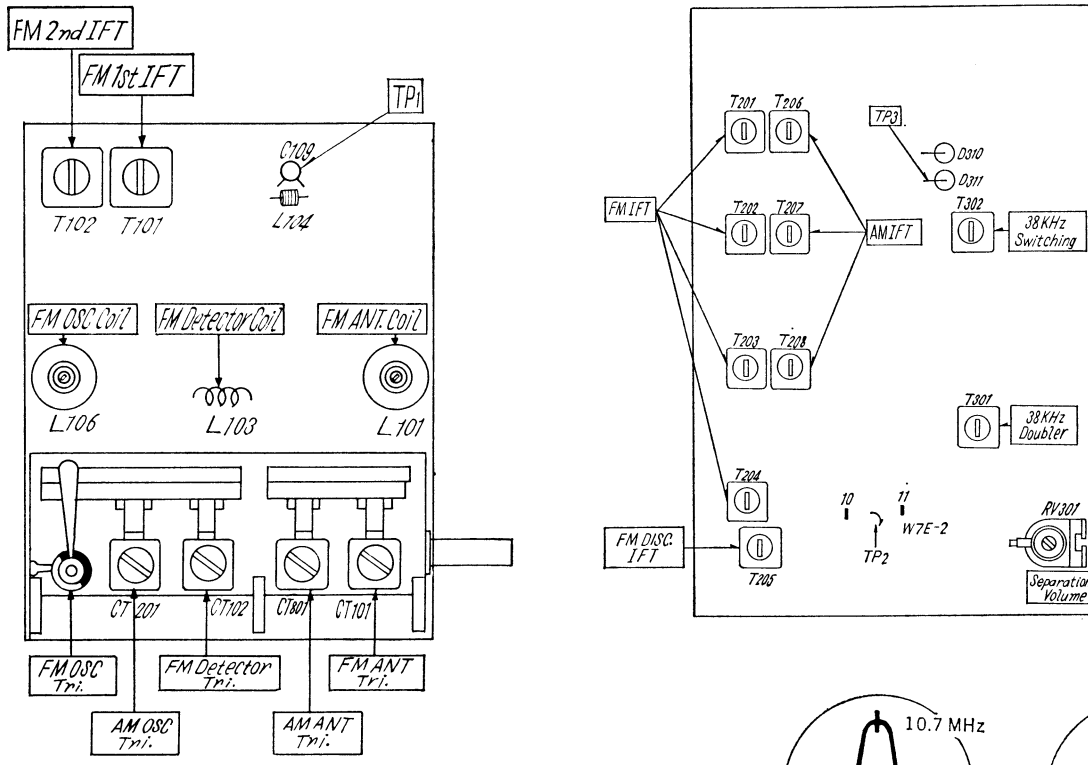


Fig. 12 Alignment Point

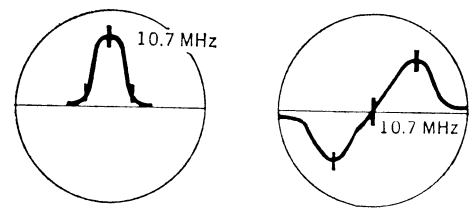


Fig.13

■ FM RF ALIGNMENT

Output of of signal generator should be no higher than necessary to obtain an output reading.

* Set volume control to maximum.
* Set balance control to center.
* Set band selector switch to FM.
* Set treble control to center (flat).
* Set bass control to center.

STEP	SIGNAL GENERATOR FREQUENCY	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1	Connect to EXT FM antenna terminal thru FM dummy antenna. Common to chassis	90 MHz (400 Hz Mod)	90 MHz	Output meter across EXT Speaker Terminal (L)	L_{106} (FM OSC Coil) L_{101} (FM ANT Coil) L_{103} (FM Det. Coil) (Refer to Fig. A)	Adjust for maximum aduio output.
2	"	106 MHz (400 Hz Mod)	106 MHz	"	Ct_{103} (FM OSC Trimmer) Ct_{801} (FM ANT Trimmer) Ct_{102} (FM Det. Trimmer)	Adjust for maximum audio output. Repeat steps (1) and (2).

2. FM STEREO ALIGNMENT

■ 19 kHz AMP. ALIGNMENT

EQUIPMENT REQUIRED

- Stereo Modulator.....Connect Stereo Modulator output to EXT. Terminal of signal generator.
- Signal Generator.....Modulation Rate of 19 kHz Pilot Signal...10%
  Output Level.....30 dB
  Frequency .....Approximately 90 MHz
- OSCILLOSCOPE
- DUMMY ANTENNA
- VTVM

CONTROL SETTING & PROCEDURE

Tuner.....Band selector switch to FM STEREO, Treble control to minimum, Bass control to minimum, Balance control to center, Volume control to audible level of speaker sound, and dial setting to approximately 90 MHz.

SEPT	ALIGNMENT	EQUIPMENT CONNECTION		ADJUST	REMARKS
		SIGNAL GENERATOR	OSCILLOSCOPE		
1	19 KHz Amp.	Connect to EXT. FM antenna terminal through dummy antenna	Connect vert. Amp. of scope to point TP_2. Common to chassis.	T_{301} (38 kHz Doubler) T_{302} (38 kHz Switching)	Adjust T_{301} and T_{302} for maximum oscilloscope pattern of 38 kHz

■ SEPARATION ALIGNMENT

EQUIPMENT REQUIRED

- Stereo Modulator.....Connect Stereo Modulator to EXT. Mod. terminal of signal generator.
- Signal Generator.....Modulation Rate by 19 kHz Pilot Signal.....10%
  Modulation Rate by Left Signal 27%
  Output Level.....60%
- OSCILLOSCOPE
- Dummy Antenna 300Ω Balanced
- VTVM

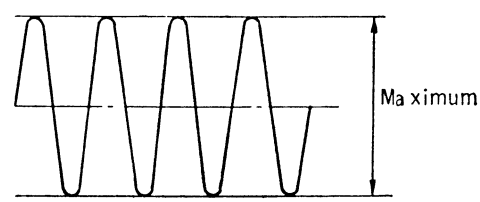


Fig. 14

CONTROL SETTING & PROCEDURE

Tuner.....Band selector switch to FM dial setting to approximately 90 MHz, Treble control to minimum, Bass control to minimum, Balance control to center, Volume control to 500 mW of output level.

STEP	ALIGNMENT CIRCUIT	ADJUSTMENT	REMARKS
1	SEPARATION	RV_{301} (Separation Control)	Adjust RV_{301} for the minimum indication on VTVM from the right side output when the left side of stereo modulator is modulated.

3. POWER AMP. ALIGNMENT

EQUIPMENT REQUIRED

Tester (DC mv Range)
VTVM (DC mv Range)

- Set band selector switch to PHONO.
- Set volume control to minimum.
- Set treble control to cfnter.
- Set bass control to center.
- Set balance control to center.

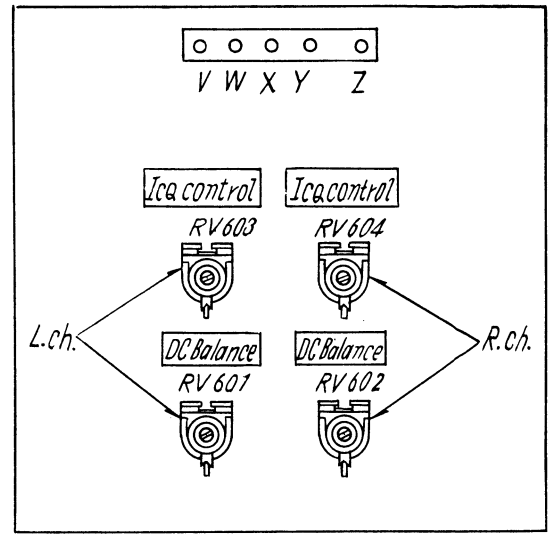


Fig. 15.

STEP	ALIGNMENT CIRCUIT	EQUIPMENT CONNECTION	ADJUSTMENT	REMARKS
1	DC Balance	Connect Tester to Point W and X. Connect Tester to Point Y and X.	RV_{601} (Lch)	Make adjustments so that the power voltage becomes 0 voltage.
2			RV_{602} (Rch)	
3	ICQ Control	Connect VTVM (for DCmV) to point V and W.	RV_{603} (Lch)	Make adjustments so that the indication on VTVM becomes 12 mV. Repeat steps (1, 2 and 3, 4)
4		Connect VTVM (for DCmV) to point Y and Z.	RV_{604} (Rch)	

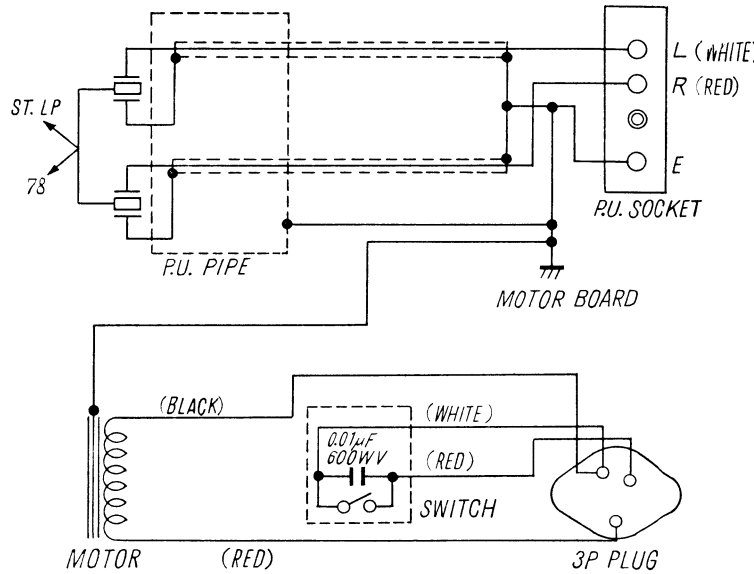
MEMO

LOCATION OF PARTS Model SAP-111WD

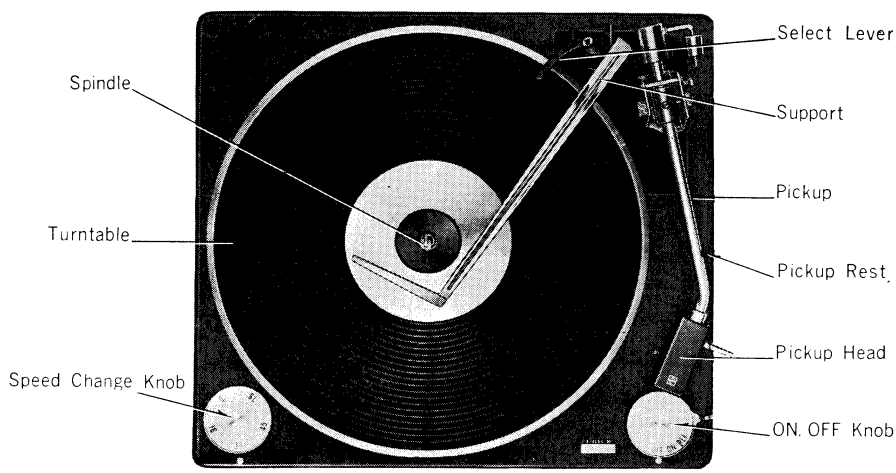
SPECIFICATIONS

Cartridge:	MAGNISTATE (PCM ceramic)
Frequency response:	20–20,000 Hz
Output voltage:	150 mV (50 mm/sec at 1 kHz)
Channel balance:	Less than 3 dB at 1 kHz
Channel separation:	More than 13 dB at 1 kHz
Stylus:	PANASONIC EPS-13TTAD (Diamond)
Stylus pressure:	6g
Motor:	2-pole Synchronous Type
Speed:	16, 33, 45, 78 rpm.
S/N:	40 dB
Turntable:	11 inch stamped metal with beautiful rubber sheet
Power supply:	50/60 Hz, 100V
Power consumption:	13 Watts
Cabinet Dimensions:	18-1/2″(W) × 7-5/8″(H) × 13-3/4″(D)
Weight:	14 lbs.

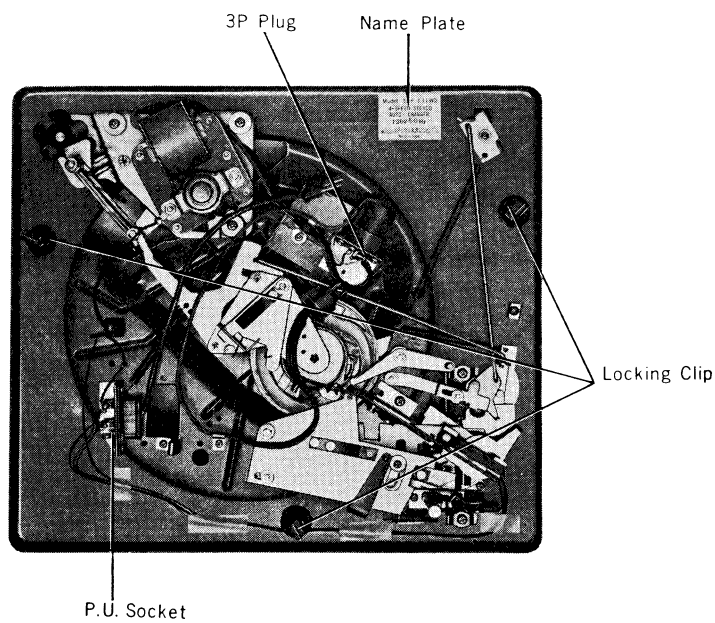
Schematic Diagram



Top View



Bottom View



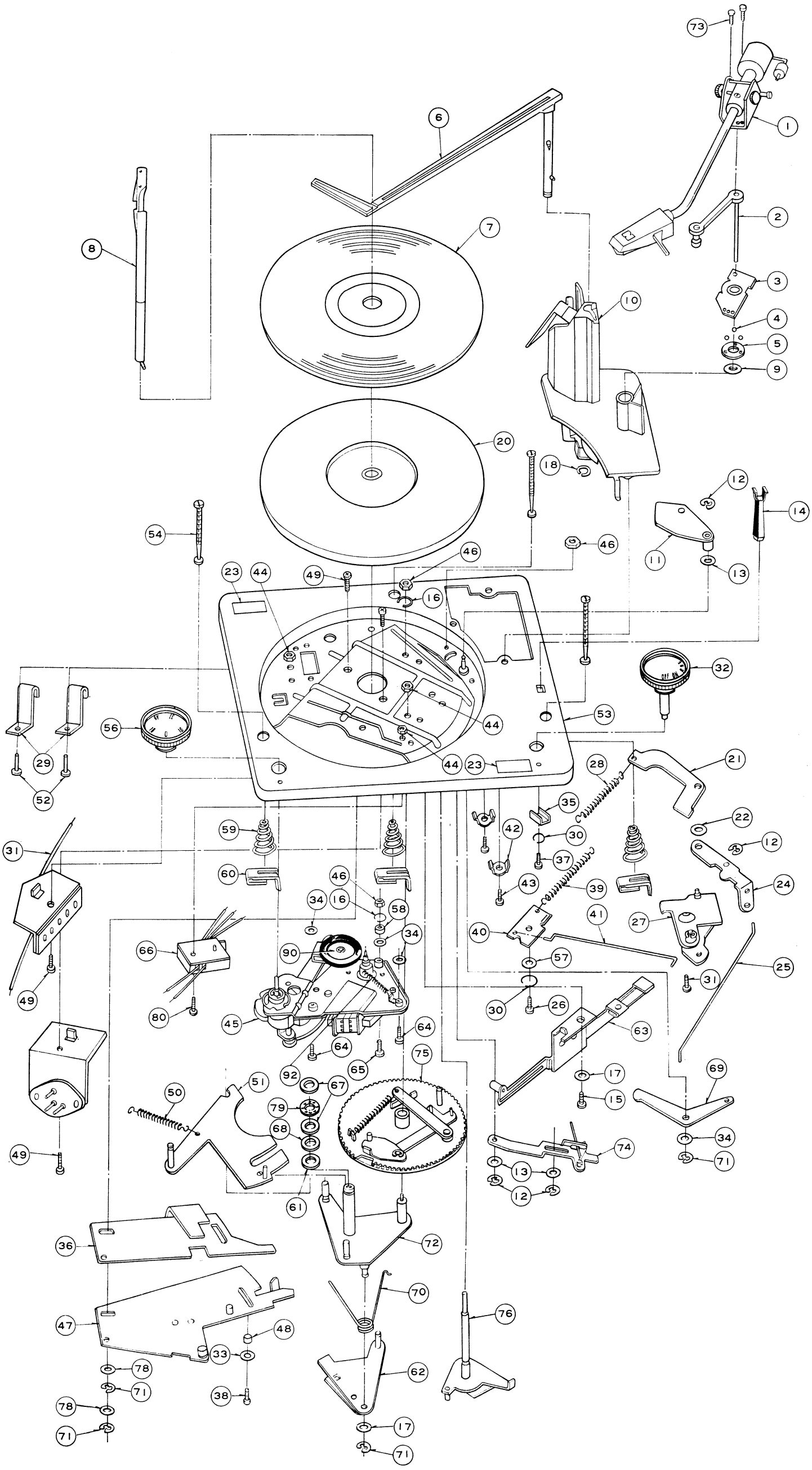
PARTS LIST

MODEL SAP-111WD

(1) RECORD CHANGER

No.	Part No.	Part Name	No.	Part No.	Part Name
1	CPD-382S(C)	Pickup Ass'y	36	G6438-A	H-Plat Ass'y
2	G6890-C	Elevating Rod Ass'y	37	SBSB2608Z	Tapping Screw
3	G4851-A	Plate Ass'y	38	LPSP3010Z	Ass'y Screw
4	1/16	Steel Ball	39	G4524-1	Spring (ON-OFF) Knob
5	G6246	Bearing Holder	40	G4520	Lever (ON-OFF) Knob
6	G3211-G	Support Ass'y	41	G4523	Rod
7	G2045-B	Turntable Cover Ass'y	42	G4447	Washer (P.U. Base. Motor Board)
8	G3210-A	Spindle Ass'y	43	SPSP4006Z	Screw
9	G4517	Thrust Washer	44	NTB3000	Nut
10	G0849	Pickup Base Ass'y	45	EM-70641-L	Phono Motor Ass'y
11	G4490-A	Trip Lever Ass'y	46	NTB-4000	Nut
12	REE2000	E Ring	47	G3088-C	H-Plate Ass'y
13	WNB-3000N	Washer	48	G4500	Spacer (H-Plate)
14	G4900-A	P.U. Arm. Rest	49	LPSP3006Z	Ass'y Screw
15	LRSP4010Z	Ass'y Screw	50	G4602	Spring (Idler Off)
16	WLS4000	Lock Washer	51	G6545	Lever (Idler Off)
17	WNB4000N	Washer	52	RTA3006	Rivet
18	G4532	Clip (Support Rod)	53	G0848	Motor Board Ass'y
19	G8055-A	P.U. Socket Ass'y	54	G6342-2	Mounting Screw
20	G2061-A	Turntable Ass'y	55	G8058-A	3-pin Plug Ass'y
21	G4630-3	Arm (ON-OFF)	56	G3131-A	Knob Ass'y (Speed Change)
22	WSB4000N	Washer	57	03037-126	Washer
23	G8266	Identification Plate	58	M0302-405	Spacer
24	G4542-A	Arm (Idler Off) Ass'y	59	G4579-4	Conical Spring
25	G4526-3	Rod	60	G4056	Locking Clip
26	SPSP2606Z	Ass'y Screw	61	G4631	Thurust Washer
27	G4456-C	Set Plate Ass'y	62	G4485-A	Spindle Lever Ass'y
28	G4524-2	Spring (ON-OFF)	63	G3091-C	V-Lever Ass'y
29	G8046	Wire Clamp	64	M4913-A	Screw Ass'y
30	WLS2600	Lock Washer	65	M4913-B	Screw Ass'y
31	Q04007-0-10	Vinyl wire	66	G3341-J	Switch Ass'y
32	G3220-A	Knob Ass'y	67	G5090	Thrust Washer
33	Q03091-119	Washer	68	M4710-2	Rubber Washer
34	Q03091-109	Washer	69	G4495	Lever (Shut Off)
35	G4369-2	Washer	70	G4486	Spring (Spindle)

EXPLODED VIEW OF RECORD CHANGER



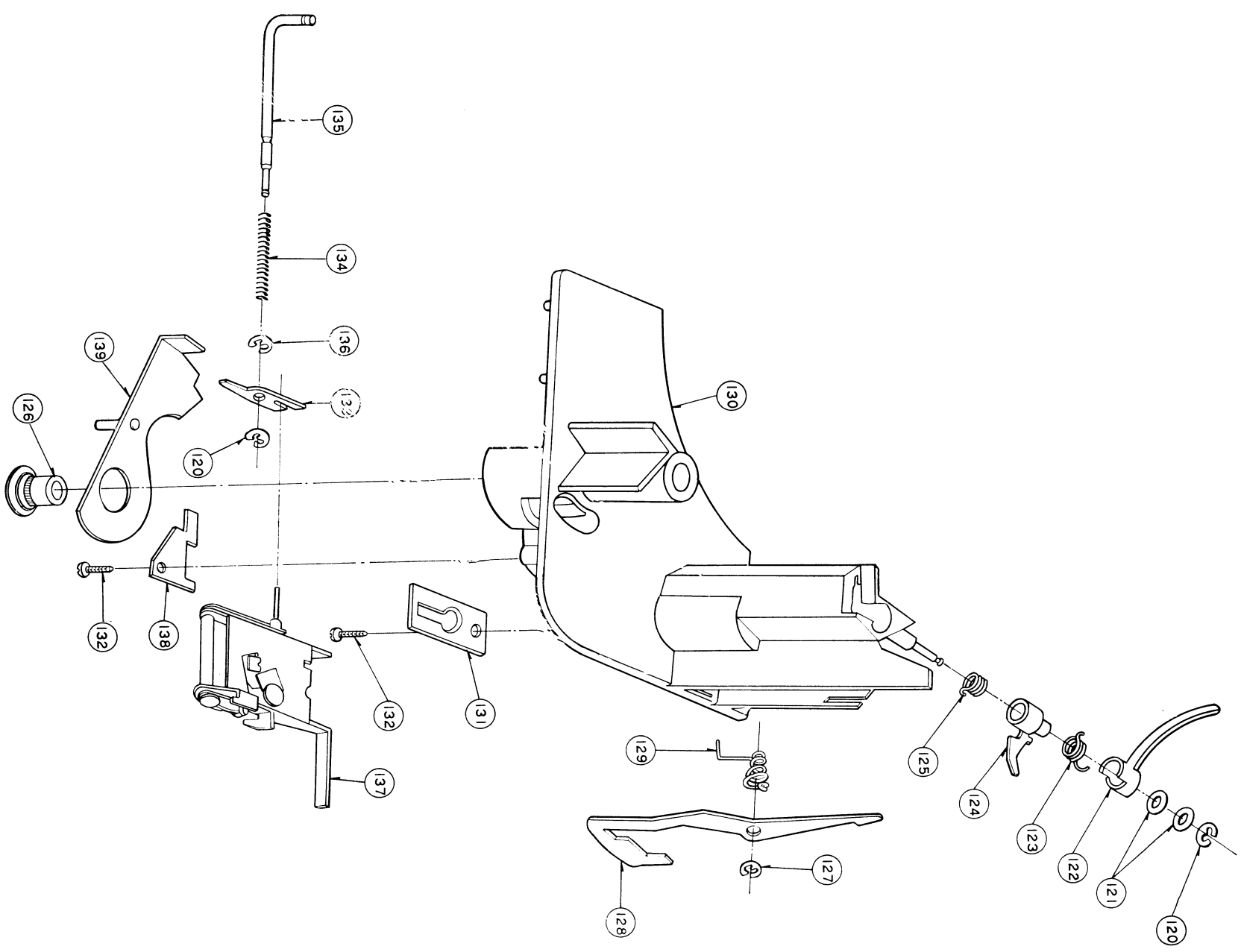
No.	Part No.	Part Name	No.	Part No.	Part Name
71	G4565-2	E-Washer	78	WSB5000N	Washer
72	G3085-A	Spindle Bracket Sub Ass'y	79	G5070-4	Bearing
73	SPSP3004N	Screw	80	LPSP3020Z	Ass'y Screw
74	G4494-A	Trip Slide Ass'y		EPC-35TTAD	Cartridge
75	G3084-A	Gear Ass'y		EPS-13TTAD	Stylus (Diamond)
76	G4515-F	Arm Lever Ass'y			

(2) PICKUP BASE:

No.	Part No.	Part Name	No.	Part No.	Part Name
120	REE2000	E-Ring	130	G2029-E	Pick Up Base Ass'y
121	WSB3000N	Washer	131	G4415	Set Plate (Support Rod)
122	G4446-2	Select Lever	132	LPSP3006Z	Ass'y Screw
123	G4445	Spring (Select Lever)	133	G6546-1	Pusher (Shut Off)
124	G4444-2	Select Lever sub-Ass'y	134	G4438	Spring (Shut off Rod)
125	G4443	Spring (Select Lever sub-ass'y)	135	G6547-2	Shut Off Rod
126	G4442	Bearing (P.U. Arm)	136	G4565-2	E. Washer
127	G4565-2	E-Washer	137	G3081-C	Stopper Ass'y
128	G8035	Lever (Select)	138	G4433	Set Plate (Stopper)
129	G4416	Spring (Lever Select)	139	G4441-A	Index Lever

(3) MOTOR PARTS:

No.	Part No.	Part Name	No.	Part No.	Part Name
150	M6254-D	Idler Ass'y	153	52906-3	Idler Spring
151	M4747-A (50 Hz)	Pulley Ass'y	154	52992-1	Rubber Bushing
152	M4747-B (60 Hz)	Pulley Ass'y			



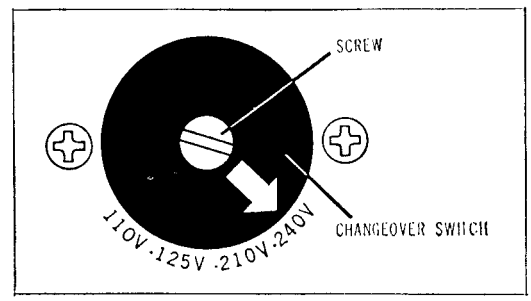
PREPARATIONS

POWER SOURCES

This set has four voltage power sources: 110, 125, 210 and 240 volts.

TO SET VOLTAGE

If the voltage to which the unit is different from that of your area, remove the voltage changeover screws and set the changeover switch to the voltage of your area (You can find the switch at the rear of the cabinet.)



DX-LOCAL FM SENSITIVITY SELECTOR

Where signals are very strong, slide this selector to LOCAL. In fringe areas where you must bring in the station clearer, slide this selector to DX.

PHONO CONNECTION

PHONO 1...Connect the pick-up lead wire of NATIONAL SS-7000 phonograph with this terminal.
For use with any phonograph other than the NATIONAL SS-7000 be sure to use only those which have a ceramic cartridge.

Input voltage	150 mV
Input impedance	30 kΩ

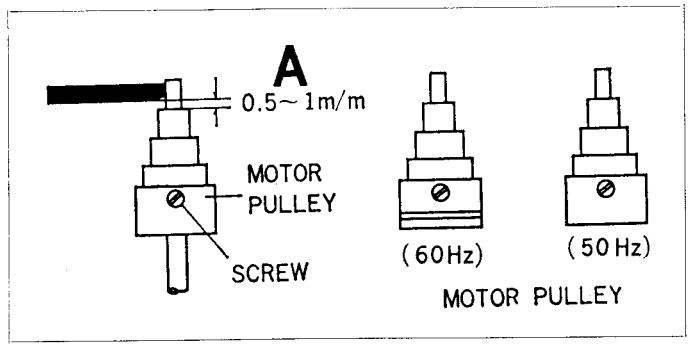
PHONO 2...Connect the pickup lead wire of a moving magnetic cartridge with this terminal.

Input voltage	3 mV
Input impedance	50 kΩ

HOW TO SET THE POWER SOURCE FREQUENCY

AC power frequency varies not only from country to country, but often from region to region. Therefore, be careful to check the frequency in your area. If it differs from the frequency used previously (as in another region), the motor pulley must be changed to avoid incorrect turntable revolution speed. Follow these steps when changing the motor pulley.

- Remove the turntable rubber, then pull off the clip of the turntable center.
- Lift off the turntable.
- Loosen the screws and remove the motor pulley.
- Attach the other motor pulley.
- Check the length of A. (Set the speed selector knob at 33 and turn the reject lever to ON.)



INTRODUCTION OF MONOLITHICK IC

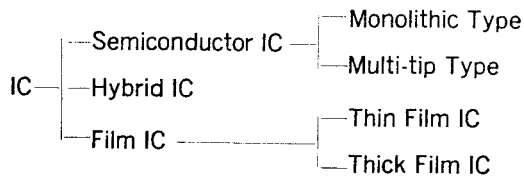
The Equalizer Circuit of SS-7000 uses IC (shown in the Circuit Diagram IC_{401} AN-204). Please read through the following explanation and make the best use of it.

General Theory of IC

■ IC (Integrated Circuit)

Since Texas Instruments, USA, developed know-how to make transistors, diodes, resistors, capacitors, etc. on a minute single base plate in 1958, this technique is widely applied to electric appliances.

■ Classifications by manufacturing method of IC



■ Advantages of IC

1) Compactness and light weight.
2) Small electric consumption.
3) Low cost if mass-produced.
4) High reliability
5) Fewer manufacturing processes needed.
6) Simple procedure to make the intricate circuit.

MONOLITHIC TYPE SEMICONDUCTOR IC

The Semiconductor IC consists of a number of transistors, diodes, resistors and capacitors combined together on a silicon base plate of about 1 mm square. It is manufactured by use of photographic technology.

■ IC AN-204 (For Model SS-7000)

AN-204 is a monolithic type semiconductor IC for low-frequency amplification, developed by Matsushita Electronics Corporation. 10 transistors, 6 diodes, 10 resistors and 2 capacitors are built in one chip, and 12 feet are attached to the IC.

Makes no loud noise and shows high loop gain. When used for an MM cartridge equalizer circuit, it helps attain a sufficient amount of feedback gain. It, therefore, constitutes a stable cartridge equalizing circuit almost free distortion.

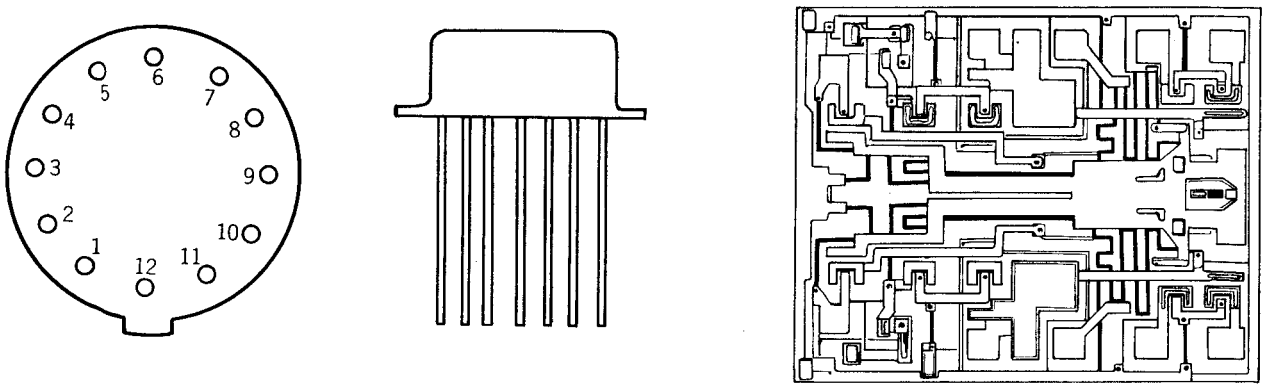


Fig. 1

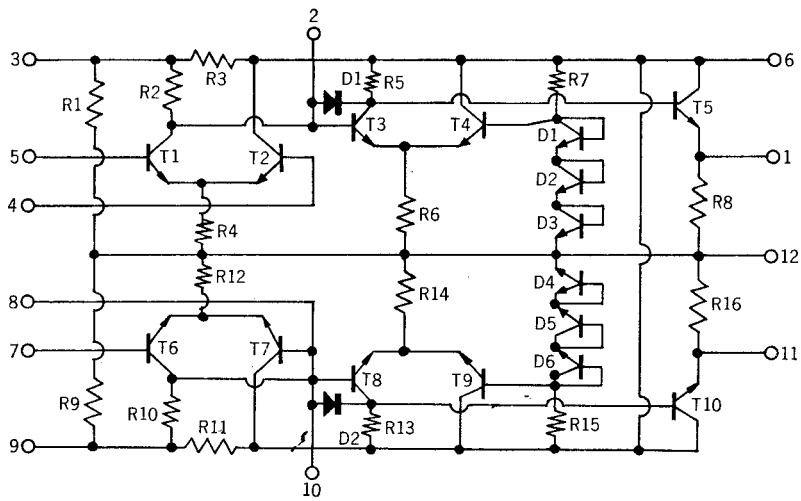
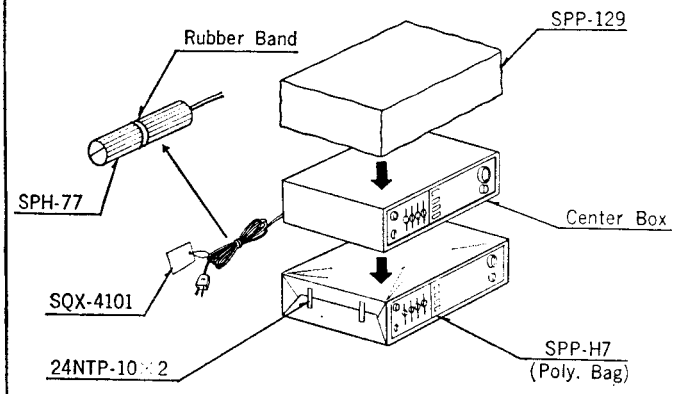
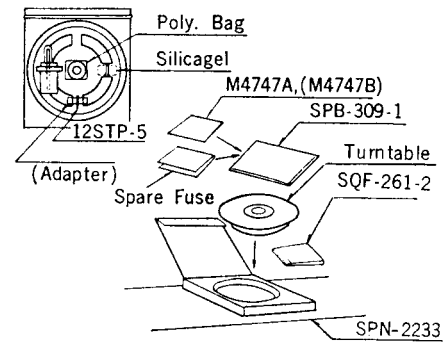


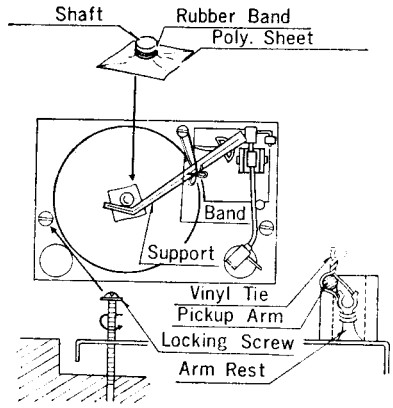
Fig. Equalizer (Equivalent) Circuit

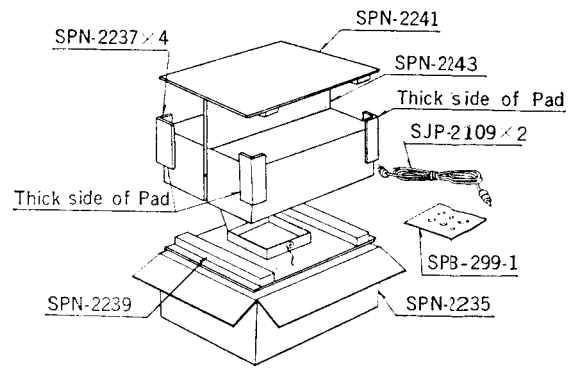
MEMO

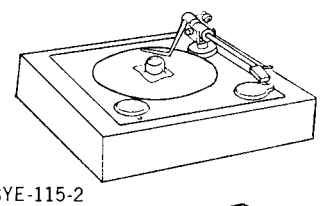
COMPONENT PACKING PROCEDURE

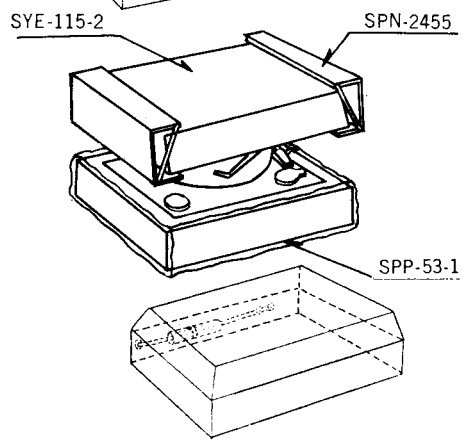


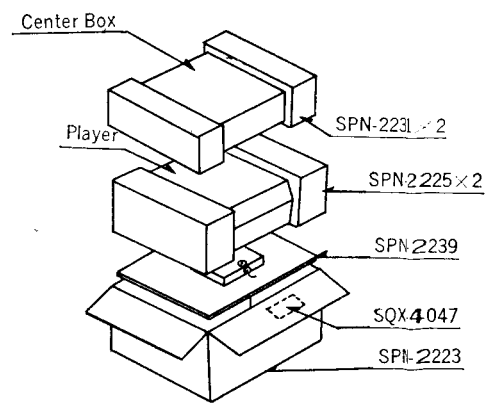


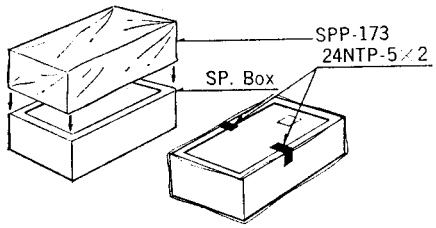


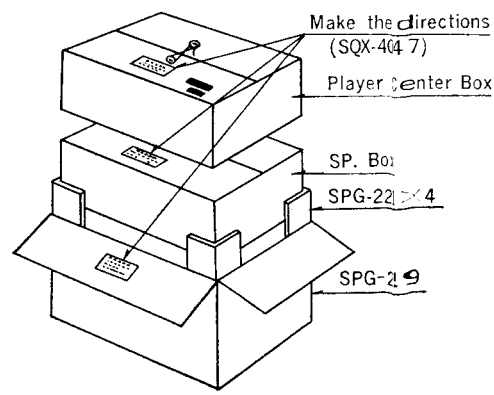








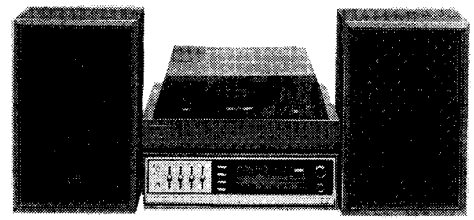




Printed in Japan
H-7006-2,700

REPLACEMENT PARTS LIST
STEREO SYSTEM
MODEL SS-7000

NOTES:
1. Part numbers are indicated on most mechanical parts. Please use this number, for parts which have no Ref. No.
2. ISO metric thread screws & parts which employ ISO metric thread screws are identified by ISO marking (ISO).
3. Ⓝ indicates the New Parts.



SS-7000

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
	TRANSISTORS					
TR101	FM RF Amp.	3SK32A	1			
TR102	FM Mixer	2SC381BN	1			
TR103	FM Osc.	2SC381BN	1			
TR201	FM 1st IF Amp.	2SC381BN	1			
TR202	FM 2nd IF Amp., AM 1st IF Amp.	2SC381BN	1			
TR203	FM 3rd IF Amp., AM 2nd IF Amp.	2SC645A	1			
TR204	FM Limiter	2SC645A	1			
TR205	AM Converter	2SA102CA	1			
TR301	Distributor	2SC828R	1			
TR302	19kHz Amp.	2SC828R	1			
TR303	38kHz Amp.	2SC828R	1			
TR304	38kHz Switching	2SC828R	1			
TR305	Lighting	2SA550R	1			
IC401	Equalizer Amp.	AN204	1	Ⓝ		
TR501, 502	Pre. Amp.	2SA564FQ	2			
TR601, 602	1st Driver	A2SA564FQ	2			
TR603, 604	2nd Driver	A2SC538Q	2			
TR605, 606	3rd Driver	A2SC538Q	2			
TR607, 608	3rd Driver	A2SA550QRS	2			
TR701	Rectifier	2SB324H	1			
TR609, 610, 611, 612	Power Amp.	A2SD226P	4			
	COILS					
L101	FM Ant. Coil	SLA4P3	1			
L102, 105	Choke Coil	SLQX250-1	2			
L103	FM Detector Coil	SLD4Y11	1			
L104	10.7MHz Trap Coil	ELQ5A9	1			
L106	FM Osc. Coil	SLQ4P13	1	Ⓝ		

SS-7000

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
L201, 202	Choke Coil	SLQX250-1	2			
L203	Choke Coil	ELQ6A11	1			
L204	MW Osc. Coil	SLO2P1	1			
L301	SCA Filter	ELQ393D599G	1			
L801	MW Ant. Coil	SLF2D3	1			
	DIODES					
D101	FM AGC	OA79	1			
D201	AM AGC	OA70	1			
D202, 203	Bias Diode	MA26	2			
D204, 205	Voltage Doubler Rectifier	OA79	2			
D206, 207	Meter Diode	OA79	2			
D208	Meter Diode	OA70	1			
D209	AM Detector	OA70	1			
D210, 211	FM Detector	2OA79	1 Pair			
D301	Temperture Compensator	MA26	1			
D303	38kHz Doubler	OA70	1			
D304	Auto Switching	OA70	1			
D305		MA26	1			
D306, 307	Temperture Compensator	MA26	2			
D308-311	38kHz Switching	2OA70	4			
D601, 602, 604, 605	Temperture Compensator	MA26	2 Pair			
D603, 606	Temperture Compensator	DS410	2			
D701	Rectifier	1S1850	1			
D702	Rectifier	1S1850R	1			
D703	Stabilizer	1S1717	1			
	TRANSFORMERS					
T101	FM 1st IFT	EIF10S211A	1			
T102	FM 2nd IFT	EIF10S205B	1			
T201	FM 3rd IFT	SLI4C103	1			
T202	FM 4th IFT	SLI4C103	1			
T203	FM 5th IFT	SLI4C103	1			
T204	FM 6th IFT	SLI4C501	1			
T205	FM Disc. IFT	EIF10S211F	1			
T206	AM IFT	SLI2C115	1			
T207	AM IFT	EIA10S216BM	1			

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
T208	AM IFT	SLI2C407	1			
T301	38kHz Doubler	SLM1C3T	1			
T302	38kHz Switching	SLM1C7T	1			
T801	Power Trans.	SLT5N27	1	Ⓝ		
	RESISTORS (**FM RF CIRCUIT BOARD**)					
R101	Carbon 56KΩ ±5% 1/4W	ERD14VJ563	1			
R102	Carbon 120KΩ ±5% 1/4W	ERD14VJ124	1			
R103	Carbon 100KΩ ±5% 1/4W	ERD14VJ104	1			
R104	Carbon 470KΩ ±5% 1/4W	ERD14VJ474	1			
R105, 108	Carbon 220Ω ±5% 1/4W	ERD14VJ221	2			
R106, 110	Carbon 10KΩ ±5% 1/4W	ERD14VJ103	2			
R107	Carbon 1.8KΩ ±5% 1/4W	ERD14VJ182	1			
R109	Carbon 3.9KΩ ±5% 1/4W	ERD14VJ392	1			
	(**AM RF, FM IF CIRCUIT BOARD**)					
R201,205,212	Carbon 22KΩ ±5% 1/4W	ERD14VJ223	3			
R202	Carbon 3.9KΩ ±5% 1/4W	ERD14TJ392	1			
R203	Carbon 470Ω ±5% 1/4W	ERD14TJ471	1			
R204, 322	Carbon 1.5KΩ ±5% 1/4W	ERD14VJ152	2			
R206,222,228, 238,310	Carbon 220Ω ±5% 1/4W	ERD14VJ221	5			
R207,214,224	Carbon 22Ω ±5% 1/4W	ERD14VJ220	3			
R208	Carbon 3.9KΩ ±5% 1/4W	ERD14VJ392	1			
R209,220,307, 319,337,814	Carbon 470Ω ±5% 1/4W	ERD14VJ471	6			
R210,211,230, 232,233,311, 326–329	Carbon 1KΩ ±5% 1/4W	ERD14VJ102	10			
R213, 301	Carbon 10Ω ±5% 1/4W	ERD14VJ100	2			
R215, 221	Carbon 270Ω ±5% 1/4W	ERD14VJ271	2			
R216,334,335	Carbon 18KΩ ±5% 1/4W	ERD14VJ183	3			
R218	Carbon 2.2KΩ ±5% 1/4W	ERD14VJ222	1			
R219, 231	Carbon 27KΩ ±5% 1/4W	ERD14VJ273	2			
R223	Carbon 8.2KΩ ±5% 1/4W	ERD14TJ822	1			
R225,239,306	Carbon 1.2KΩ ±5% 1/4W	ERD14VJ122	3			
R226	Carbon 120KΩ ±5% 1/4W	ERD14VJ124	1			
R227, 312	Carbon 6.8KΩ ±5% 1/4W	ERD14VJ682	2			
R229	Carbon 560Ω ±5% 1/4W	ERD14VJ561	2			
R231	Carbon 68Ω ±5% 1/4W	ERD14VJ680	1			
R234	Carbon 100KΩ ±5% 1/4W	ERD14VJ104	1			

SS-7000

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
R235	Carbon 33KΩ ±5% 1/4W	ERD14VJ333	1			
R217,237,315	Carbon 3.3KΩ ±5% 1/4W	ERD14VJ332	3			
R240	Carbon 220Ω ±5% 1/4W	ERD14TJ221	1			
R241	Carbon 33Ω ±5% 1/4W	ERD14VJ330	1			
R302,309,320	Carbon 39KΩ ±5% 1/4W	ERD14VJ393	3			
R303	Carbon 15KΩ ±5% 1/4W	ERD14VJ153	1			
R304, 330-333	Carbon 47KΩ ±5% 1/4W	ERD14VJ473	5			
R305	Carbon 680Ω ±5% 1/4W	ERD14VJ681	1			
R308, 321	Carbon 56KΩ ±5% 1/4W	ERD14VJ563	2			
R313, 314	Carbon 8.2KΩ ±5% 1/4W	ERD14VJ822	2			
R316, 324	Carbon 390Ω ±5% 1/4W	ERD14VJ391	2			
R317	Carbon 2.7KΩ ±5% 1/4W	ERD14VJ272	1			
R318	Carbon 4.7KΩ ±5% 1/4W	ERD14VJ472	1			
R323	Carbon 5.6KΩ ±5% 1/4W	ERD14VJ562	1			
R325	Carbon 10Ω ±5% 1/4W	ERD14VJ100	1			
RV301	Variable Resistor (Separation)	EVLS3AA00B32	1			
	(Equalizer CIRCUIT BOARD)					
R401, 402	Carbon 220Ω ±5% 1/4W	ERD14VJ221	2			
R403, 404	Carbon 270KΩ ±10% 1/2W	ERD12TK274	2			
R405, 406	Carbon 120KΩ ±10% 1/2W	ERD12TK124	2			
R407, 408	Carbon 820Ω ±5% 1/4W	ERD14VJ821	2			
R409, 410	Carbon 150KΩ ±5% 1/4W	ERD14VJ154	2			
R411, 412	Carbon 33KΩ ±5% 1/4W	ERD14VJ333	2			
R413, 414	Carbon 470KΩ ±5% 1/4W	ERD14VJ474	2			
R415, 416	Carbon 330KΩ ±5% 1/4W	ERD14VJ334	2			
R417, 418	Carbon 4.7KΩ ±5% 1/4W	ERD14VJ472	2			
R419	Carbon 1.2KΩ ±5% 1/4W	ERD14VJ122	1			
R420, 421	Carbon 1.5KΩ ±5% 1/4W	ERD14VJ152	2			
	(Tone Control Amp. CIRCUIT BOARD)					
R501, 502	Carbon 12KΩ ±5% 1/4W	ERD14VJ123	2			
R503, 504	Carbon 4.7KΩ ±5% 1/4W	ERD14VJ472	2			
R505, 506	Carbon 180KΩ ±5% 1/4W	ERD14VJ184	2			
R507, 508	Carbon 120KΩ ±5% 1/4W	ERD14VJ124	2			
R509-512	Carbon 8.2KΩ ±5% 1/4W	ERD14VJ822	4			
R513, 514	Carbon 680Ω ±5% 1/4W	ERD14VJ681	2			
R515, 516	Carbon 6.8KΩ ±5% 1/4W	ERD14VJ682	2			
R517, 518	Carbon 2.2KΩ ±5% 1/4W	ERD14VJ222	2			

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
R519, 520	Carbon 3.9KΩ ±5% 1/4W	ERD14VJ392	2			
RV501	Balance Volume	EVAI6AA06G15-A	1			
RV502, 503	Volume	EVBH5AA06B54-A	1			
RV504-507	Tone Volume	EVBH0AA06V54-0	2			
	(Power Amp. CIRCUIT BOARD)					
R601, 602	Carbon 33KΩ ±5% 1/4W	ERD14TJ333	2			
R603, 604	Carbon 10KΩ ±5% 1/4W	ERD14TJ103	2			
R605, 606	Carbon 1KΩ ±5% 1/4W	ERD14TJ102	2			
R607, 608	Carbon 56Ω ±5% 1/4W	ERD14TJ560	2			
R609, 610	Carbon 8.2KΩ ±5% 1/4W	ERD14TJ822	2			
R611, 612	Carbon 2.7KΩ ±5% 1/4W	ERD14TJ272	2			
R613, 614	Carbon 1.5KΩ ±5% 1/4W	ERD14TJ152	2			
R615, 616	Carbon 100Ω ±10% 1/2W	ERD12TCK101	2			
R617, 618	Carbon 560Ω ±5% 1/4W	ERD14TJ561	2			
R619, 620	Carbon 15Ω ±10% 1/2W	ERD12TCK150	2			
R621, 622, 625, 626	Carbon 120Ω ±5% 1/4W	ERD14TJ121	4			
R623, 624	Carbon 15Ω ±5% 1/4W	ERD14TJ150	2			
R627-630	Wire 0.39Ω ±10% 1/2W	ERM12PK39	4			
RV601, 602	DC Balance	EVLS3AA00B14	2			
RV603, 604	I_{CQ} Control	EVLS3AA00B52	2			
	(RECTIFIER CIRCUIT BOARD)					
R701	Carbon 68Ω ±10% 1/2W	ERD12TK680	1			
R702	Carbon 3.3KΩ ±5% 1/4W	ERD14TJ332	1			
R703	Carbon 1KΩ ±5% 1/4W	ERD14TJ102	1			
	(FM Ant. Att. CIRCUIT BOARD)					
R801, 804	Carbon 330Ω ±5% 1/4W	ERD14TJ331	2			
R802, 803	Carbon 1.5KΩ ±5% 1/4W	ERD14TJ152	2			
	(Chassis)					
R805, 806	Carbon 82KΩ ±5% 1/4W	ERD14TJ823	2			
R807, 808	Carbon 120KΩ ±5% 1/4W	ERD14TJ124	2			
R809, 810	Carbon 220KΩ ±5% 1/4W	ERD14TJ224	2			
R813	Carbon 2.2KΩ ±5% 1/4W	ERD14TJ222	1			
R815	Carbon 1KΩ ±5% 1/4W	ERD14TJ102	1			
R816	Carbon 2.7KΩ ±5% 1/4W	ERD14TJ272	1			
R817, 818	Wire 6.8Ω 6W	ERM6P6R8	2	Ⓝ		

SS-7000

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
	CAPACITORS (**FM RF CIRCUIT BOARD**)					
C101	Ceramic 18pF ±10% WV-50V	ECCD05180K	1			
C102, 107	Ceramic 7pF ±0.5pF WV-50V	ECCD05070D	2			
C103,117,118	Ceramic 0.033μF $^{+100}_{-0}$% WV-50V	ECKE05333PJ	3			
C104, 105, 110, 115	Ceramic 0.0022μF ±20% WV-50V	ECKE05222MY	4			
C106	Ceramic 15pF ±10% WV-50V	ECCD05150K	1			
C108	Ceramic 3pF ±0.25pF WV-50V	ECCD05030C	1			
C109	Ceramic 330pF ±10% WV-500V	ECKD5331KF	1			
C111	Ceramic 1.5pF ±0.25pF WV-50V	ECCD051R5C	1			
C112	Ceramic 2pF ±0.25pF WV-50V	ECCD05020C	1			
C113	Mica 10pF ±10% WV-50V	ECMS05100K	1			
C114	Mica 33pF ±10% WV-50V	ECMS05330K	1			
C116	Mica 12pF ±10% WV-50V	ECMS05120K	1			
	(**AM RF & FM IF CIRCUIT BOARD**)					
C201-206,208, 209,211,212, 214,215,218-222,224,303	Ceramic 0.01μF ±5% WV-50V	ECKE05103PJ	19			
C207	Electrolytic 1μF WV-50V	ECEA50V1N	1			
C210,228,302	Electrolytic 4.7μF WV-25V	ECEA25V4R7N	3			
C213, 217	Ceramic 33pF ±10% WV-50V	ECCD05330K	2			
C223	Electrolytic 33μF WV-6V	ECEA6V33N	1			
C225, 301	Ceramic 150pF ±10% WV-50V	ECCD05151K	2			
C226	Ceramic 330pF ±10% WV-500V	ECKD5331KF	1			
C229, 310	Polyester 0.01μF ±10% WV-50V	ECQG05103KZ	2			
C230, 231	Ceramic 0.0047μF ±20% WV-50V	ECKE05472MY	2			
C232	Ceramic 10pF ±10% WV-50V	ECCD05100K	1			
C233	Polystyrene 370pF ±5% WV-100V	ECQS1371JX	1			
C304	Electrolytic 10μF WV-10V	ECEA10V10N	1			
C305, 311	Electrolytic 47μF WV-10V	ECEA10V47N	3			
C306	Polyester 0.022μF ±10% WV-50V	ECQG05223KZ	1			
C307	Polyester 0.0068μF ±10% WV-50V	ECQG05682KZ	1			
C308, 313	Polyester 0.033μF ±10% WV-50V	ECQG05333KZ	2			
C314	Polyester 0.047μF ±10% WV-50V	ECQG05473KZ	1			
C315	Polyester 0.015μF ±10% WV-50V	ECQG05153KZ	1			
C316	Porystylene 3300pF ±10% WV-100V	ECQS1332KX	1			
C317	Polyester 0.1μF ±10% WV-50V	ECQG05104KZ	1			
C318, 319	Polyester 0.0033μF ±10% WV-50V	ECQG05332KZ	2			

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
C320, 321	Polyester 0.068μF ±10% WV-60V	ECQG05683KZ	2			
	(Equalizer CIRCUIT BOARD)					
C401, 402	Polyester 0.1μF WV-50V	ECQG05104KZ	2			
C403, 404	Electrolytic 3.3μF WV-25V	ECEA25V3R3N	2			
C405, 406	Electrolytic 220μF WV-6V	ECEA6V220N	2			
C407, 408	Ceramic 330pF ±10% WV-500V	ECKD5331KF	2			
C409, 410	Polyester 0.0047μF ±10% WV-50V	ECQG05472KZ	2			
C413, 414	Electrolytic 10μF WV-10V	ECEA10V10N	2			
C415, 416	Polyester 0.01μF ±10% WV-50V	ECQG05103KZ	2			
C419–422	Electrolytic 1μF WV-50V	ECEA50V1N	4			
C423	Electrolytic 220μF WV-16V	ECEA16V220N	1			
	(Tone Control Amp. CIRCUIT BOARD)					
C503, 504	Polyester 0.001μF ±10% WV-50V	ECQG05102KZ	2			
C505, 506	Polyester 0.068μF ±10% WV-50V	ECQG05683KZ	2			
C507, 508	Electrolytic 0.47μF WV-25V	ECAG25ER47	2			
C509, 510	Electrolytic 33μF WV-6V	ECEA6V33N	2			
C511, 512	Electrolytic 4.7μF WV-25V	ECEA25V4R7N	2			
C513, 514	Polyester 0.015μF ±10% WV-50V	ECQG05153KZ	2			
C515, 516	Polyester 0.15μF ±10% WV-50V	ECQG05154KZ	2			
C517, 518	Polyester 0.0047μF ±10% WV-50V	ECQG05472KZ	2			
C519, 520	Polyester 0.022μF ±10% WV-50V	ECQG05223KZ	2			
C521	Electrolytic 220μF WV-16V	ECEA16V220N	1			
	(Power Amp. CIRCUIT BOARD)					
C601, 602	Electrolytic 0.33μF WV-25V	ECAG25ER33	2			
C603, 604	Electrolytic 0.22μF WV-25V	ECAG25ER22	2			
C605, 606	Ceramic 150pF ±10% WV-50V	ECCD05151K	2			
C607, 608	Electrolytic 1000μF WV-6V	ECEA6V1000N	2			
C609, 610	Ceramic 47pF ±10% WV-50V	ECCD05470K	2			
C611, 612	Electrolytic 220μF WV-25V	ECEA25V220N	2			
C613, 614	Electrolytic 10μF WV-10V	ECEA10V10N	2			
C615, 616	Electrolytic 47μF WV-25V	ECEA25V47N	2			
C617, 618	Ceramic 0.01μF ±5% WV-50V	ECKE05103PJ	2			
	(RECTIFIER CIRCUIT BOARD)					
C701	Polyester 0.033μF ±10% WV-50V	ECQG05333KZ	1			
C702, 703	Electrolytic 2200μF WV-25V	ECEB25V2200N	2			
C704, 705	Ceramic 0.033μF ±5% WV-50V	ECKE05333PJ	2			
C706	Electrolytic 47μF WV-16V	ECEA16V47N	1			

SS-7000

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
C_{707}	Electrolytic 100μF WV-10V	ECEA10V100N	1			
C_{801}	Paper 0.01μF ±20% WV-450V	ECNU4A103M	1			
C_{802}	Paper 0.001μF ±20% WV-450V	ECNU4A102M	1			
$C_{803, 804}$	Electorlytic 220μF WV-25V	ECEA25V220N	2			
C_{807}	Ceramic 330 pF ±10% WV-500V	ECKD5331KF	1			
	COMPONENT COMBINATIONS					
CR_{201}	0.01μF, 0.01μF & 470Ω	EXAF203Z471	1			
CR_{202}	10.7 MHz Filter	EXADG03	1			
$CR_{301, 302}$	19 KHz Filter	EXA6FC04	2			
	SWITCHES					
$S_{1, 2}$	DX Local Switch	ESD1414	1			
S_{3-8}	Selector Switch	SSRC364L25B1	1	Ⓝ		
$S_{9, 10}$	Mode Switch	SST13S	1	(ISO)		
$S_{11, 12}$	Tape Monitor Switch	SST13S	1	(ISO)		
$S_{13, 14}$	Main. Speaker Switch	SST13S	1	(ISO)		
$S_{15, 16}$	Remote Speaker Switch	SST13S	1	(ISO)		
SS_{17}	Power Switch	SSH13S	1	(ISO)		
	MISCELLANEOUS					
PL_{1-3}	Pilot Lamp 11 V 0.3 A	XAM43T	3			
PL_5	Stereo Eye 3 V 40 mA	SVL301	1			
	Fuse 0.5 A	SSF5011	1			
	Fuse 1 A	RSF1021	1			
	Fuse 1.5 A	XBAS1B1501	2	Ⓝ		
	Tuning Meter	SSM13	1			
	AC Cord	SJA33 (SJA41)	1			
	Fuse Holder	SJF103-1	2			
	2 PIN Jack	SJF3201	3			
	4 PIN Jack	SJF3405	1			
	Antenna Terminal	RJF4202	2			
	Speaker Terminal	SJF4405S	1	(ISO)		
	DIN Socket	SJS13-1	1			
	Voltage Adjust socket	RJS7S	1	(ISO)		
	Voltage Adjust Plug	RJP14	1			
	Remoe Speaker Short Pin	SJP2117	2	Ⓝ		

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
	Dial Cord	RDZ07-1	60″			
	Drum	RDD2080-1S	1	(ISO)		
	Dial Spring	RDS417	1			
	Tuning Shaft	SDT6251	1			
	Slide Volume Knob	SBN229	4			
	Selector Knob	SBN231	1			
	Power Switch Knob	SBN241	1			
	Tuning Knob	SBN227	1			
	Dial Panel	SKD1371	1	(N)		
	Smoked Plate	SDE51-1	1	(N)		
	Name Plta	SGT3031	1	(N)		
	Center Box Cabinet	SKA2931	1	(N)		
	Player Cabinet	SKA3231	1	(N)		
	Speaker Box Cabinet	SKA3232	2	(N)		
	Dial Back Plate	SDH155	1			
	Pointer Screen	SDE49	1			
	Polyslider	SDE53	1			
	Screen	SDH175-1	1			
	Screen	SDH159	1			
	Panel Rubber	SHG997	2			
	Headphone Jack	SWJ5	1			
	Headphone Jack Cover	SUV97-1	1			
	Player Source Socket	SJS4301	1			
	Phono 2 Short Pin Plug	SJP9103	2	(N)		
	Leg (Center)	SHG327	4			
	Leg (Player)	SHG327-1	4			
	Dust Cover	SYE115-2	1			
	Badge (Speaker)	SGB231-2	2			
	Grill	SKZ185	2	(N)		
	Net	SGS213	2			
	Bottom Board (ɹlayer)	SKU2810	1	(N)		
	Slider	SDA11	1			
	Sub Slider	SDP1301	1			
	6½″ PM Dynamic Speaker (Woofer)	EAS16P68S	2			
	2½″ PM Dynamic Speaker (Tweeter)	EAS5HH31SG	2	(N)		
	Panel	SGW3253	1	(N)		
	Screw, Player Bottom Board	PSM3.1-13BL	12			

Ref. No.	Description	Part No.	Per Set (Pcs.)	Remarks	Price	
	Screw, Player Back Plate	XSB3+14FVS	4	ISO		
	Screw, Speaker Cabinet	PSM3.1-20BL	24			
	Screw, Center Box Bottom Board	STR33-20BL	5	N		
	Screw, Voltage Adjust Plug	XSN3+16FVS	1	ISO		
	Screw, 3 P Socket	STR3-8ZK	2			
	Screw, Toggle Switch	XSN3+53	9	ISO		
	Screw, Drum	PL3-5.5S	2	ISO		
	Screw, Panel	XNG3BS	4	ISO		
	PACKING MATERIALS					
	Outside Packing Case	SPG219	1	N		
	Side Pad, Outside Packing Case	SPG221	4	N		
	Packing Case, Center Cabinet	SPN2223-1	1	N		
	Packing Case, Speaker Cabinet	SPN2235-1	1	N		
	Top Pad, Speaker Cabinet	SPN2241	1	N		
	Side Pad, Speaker Cabinet	SPN2237	4	N		
	Bottom Pad, Speaker Cabinet	SPN2239	1	N		
	Center, Pad, Speaker Cabinet	SPN2243	1	N		
	Pad, Player Cabinet	SPN2225	2	N		
	Lid Pad, Player	SPN2455	2	N		
	Side Pad, Amp.	SPN2231	2	N		
	Accessory Box	SPN2233	1	N		
	Pad, Pickup	SPN1687	1			
	Soft Cover, Center Unit	SPP129	1			
	Soft Cover, Player Cabinet	SPP53-1	1	N		
	Soft Cover, Speaker Cabinet	SPP173	2	N		
	Poly Bag, Center Unit	SPPH7	1			
	ACCESSORIES					
	Speaker Cord	SJP2109	2			
	Printed Matter	SQF261-2	1	N		
	Accessories Bag	SPB309-2	1	N		
	EP Adaptor	EPS10	1			
	Felt, Speaker Cabinet	SPB299-1	1	N		
	Printed Matter, Speaker Cabinet	SQF267-2	1	N		

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